TETRA TECH

February 8, 2013

Mr. Roy Crossland
START Project Officer
U.S. Environmental Protection Agency – TLC
8600 NE Underground Drive, Pillar 253
Kansas City, Missouri 64161

Subject: **Removal Assessment Report – Treatability Study**
Former Lyons Diecasting Company Site, Buckner, Jackson County, Missouri
CERCLIS EPA ID: MON000705886
U.S. EPA Region 7 START, Contract No. EP-S7-06-01, Task Order No. 0197
Task Monitor: Mike Davis, On-Scene Coordinator

Dear Mr. Crossland:

Tetra Tech, Inc. is submitting the attached Removal Assessment Report regarding a treatability study at the Former Lyons Diecasting Company site in Buckner, Jackson County, Missouri. If you have any questions or comments, please contact the project manager at (816) 412-1760.

Sincerely,

For Greg Dillon
START Project Manager

Ted Faile, PG, CHMM
START Program Manager

Enclosures

40421132

X9004.10.0197.000

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REMOVAL ASSESSMENT REPORT – TREATABILITY STUDY

FORMER LYONS DIECASTING COMPANY
BUCKNER, JACKSON COUNTY, MISSOURI

Superfund Technical Assessment and Response Team (START) 3 Contract

Contract No. EP-S7-06-01, Task Order No. 0197

Prepared For:

U.S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

February 8, 2013

Prepared By:

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1.0 INTRODUCTION

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) was tasked by the U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division to assist with a removal assessment (RA) and treatability study at the Former Lyons Diecasting Company (Lyons) site in Buckner, Jackson County, Missouri. The site has been entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, and has been assigned CERCLIS Identification Number MON000705886 (EPA 2012).

For the treatability study, START was tasked to assist EPA Region 7 and EPA's Office of Research and Development (ORD) in applying oxidation treatment reagents to polychlorinated biphenyl (PCB)-contaminated oil and sludge at the Lyons facility. EPA Region 7 had solicited assistance from ORD to identify potential treatment technologies to address PCB contamination in sludge and oil contained in a waste sump (pit) at the Lyons site. In consultation with ORD, a sulfate radical-based ferrous–peroxymonosulfate oxidative treatment was selected for evaluation based on previously successful applications in a controlled bench-scale environment, and because this oxidative method poses substantially fewer safety hazards than other commonly used oxidation technologies, which are typically exothermic and reactive.

The study, a single-batch evaluation, was designed to simulate an in-situ treatment application for waste in the pit. The process was based on laboratory bench-scale experiments by ORD using control standards and site-derived waste that had proven effective in degrading PCBs. All activities of the treatability study occurred at the Lyons site, where the facility had operated within a 3-acre portion of 28.7 acres of deeded property (Missouri Department of Natural Resources [MDNR] 2010). The purpose of the study was to determine the effectiveness and feasibility of the treatment method in order to develop an alternative for remediation at the site.

1.1 SITE LOCATION AND DESCRIPTION

The site address is 2300 North Holly Road, in Buckner, Missouri. The site is in the northwest quarter of the southwest quarter of the southwest quarter of Section 18, Township 50 North, Range 29 West. The approximate geographic coordinates for the central portion of the site are 39.13914 degrees north latitude and 94.15872 degrees west longitude (see Appendix A, Figure 1).

The site includes four buildings, one concrete-lined lagoon (Lagoon 1), one soil-lined lagoon (Lagoon 2), two small ponds (Ponds 1 and 2), and a field previously used for agriculture (see Appendix A, Figure 2).

Lyons manufactured aluminum and zinc castings from 1953 to approximately 2004 (MDNR 2010). In 2004, Lyons entered foreclosure, and all manufacturing ceased. In 2007, the property was auctioned in four separate lots: one consisting of machinery, the second consisting of small equipment, the third consisting of scrap metal, and the fourth consisting of the property and the existing buildings (MDNR 2010). The property currently is vacant, but the owner plans to use the property as a sorting facility for a recycling operation.

1.2 PREVIOUS INVESTIGATIONS

Previous investigations at the Lyons site have included the following:

- In August 1999, MDNR conducted a Resource Conservation and Recovery Act (RCRA) inspection at the site. The facility was evaluated as a possible large-quantity generator of hazardous waste. A notice of violation was issued to the facility for failure of a generator of solid waste to determine whether or not that waste is hazardous (MDNR 2010).

- In October 2002, Triad Environmental Consultant Services (TEC) completed a Phase I Environmental Site Assessment (ESA) of the site. The ESA revealed evidence of recognized environmental conditions (REC) in connection with the property. Additional environmental investigations were recommended to determine if any adverse environmental impact was associated with the site (MDNR 2010).

- In December 2002, TEC completed a Phase II ESA. A soil sample from the property contained elevated levels of zinc. TEC recommended excavation of the area of zinc contamination. The estimated volume of soil to be excavated in this area was less than 3 cubic yards (MDNR 2010).

- In March and November 2007, the MDNR Environmental Services Program (ESP) conducted two separate sampling events to determine if hazardous waste was present at the site.

- On October 14, 2009, MDNR conducted a Preliminary Assessment/Removal Site Evaluation (PA/RSE) to delineate the extent of contamination and to determine whether any contaminants had migrated from the site to groundwater or surface water (MDNR 2010). MDNR recommended the following: (1) a time-critical removal action to address ignitable hazardous waste contaminated with PCBs in a warehouse waste pit, (2) additional soil and groundwater sampling to determine the extent of possible material leakage from the waste pit, (3) a non-time-critical removal action to address surficial soil contaminated with PCBs at various locations around the main warehouse building, and (4) additional characterization to evaluate the surface water and groundwater pathways.

- From October 18 through 21, 2010, and April 4 through 7, 2011, Tetra Tech START conducted RA sampling at the Lyons site, collecting samples of soil (both surface and subsurface), groundwater, surface water, and sediment. In addition, START collected interior wipe, concrete, floor sweep, and waste pit samples from the main warehouse building

at the site, and documented site activities. The purpose of the RA was to obtain data sufficient to determine if historical site operations had resulted in contamination of environmental media and building materials/surfaces at levels that would warrant a removal action. Results of this investigation indicated that site conditions posed a threat to human health and the environment, and warranted a removal action as per 40 *Code of Federal Regulations* (CFR) 300.415(b)(2) of the National Contingency Plan (NCP).

Multiple sources of PCB contamination remain present at the former Lyons facility, including the waste pit in the warehouse and the lagoon directly north of it.

2.0 SITE ACTIVITIES

START team members Jason Heflin and Greg Dillon conducted site activities on May 14 through 18, 2012. EPA Region 7 On-Scene Coordinators (OSC) Mike Davis and Joe Davis were on site, along with EPA ORD Research Chemists Souhail Al-Abed and David Reisman, to oversee treatability study operations. Additionally, Margie St. Germain, Organic Chemistry Section Chief, and Chemist David Wilson, both from the EPA Region 7 laboratory, were present throughout the duration of the study to perform on-site, rapid, micro-extraction analyses of samples collected. Mr. Heflin was the START Project Manager, and OSC Mike Davis was the EPA Region 7 Project Manager. All samples collected during the study for laboratory analysis were submitted to the EPA Region 7 laboratory in Kansas City, Kansas. All samples were stored in coolers maintained at temperatures at or below 4 degrees Celsius (°C) until delivery to the laboratory. Figure 3 in Appendix A shows a site layout of treatability study operations. A copy of the site logbook documenting all START activities is included as Appendix B, and photographs of site activities are included as Appendix C.

The waste pit contained three phases of material—light non-aqueous phase liquid (LNAPL), water, and sludge. On April 25, 2012, EPA and START personnel collected a representative volume of material from the waste pit at the Lyons site to be used for the treatability study. Approximately 80 gallons of the multi-phase waste was pumped from the pit into a 110-gallon steel drum staged within the main building of the facility for the treatability study. Volumetric proportions of sludge, water, and LNAPL pumped into the drum were approximately equivalent to those in the waste pit.

On May 14, 2012, EPA and START mobilized to the site to stage supplies for the treatability study, which began on May 15, 2012. Baseline samples of all three phases of the waste (LNAPL, water, and sludge) were collected from the waste pit prior to beginning treatment of the representative waste sample in the drum. Each phase was sampled discretely to monitor degradation of contaminants (primarily PCBs) in that phase throughout the treatment process. LNAPL and sludge were sampled using an extendable tank sampler with dedicated polycarbonate sampling cups. The water was sampled with a

low-flow peristaltic pump by partitioning the LNAPL and submerging the inlet tubing into the underlying water.

To simulate previous laboratory experimental conditions, the material that had been collected in the drum was mixed to integrate all phases of the waste. A drum mixer, consisting of a stainless steel paddle powered by a 5/8-inch Makita hammer drill, was secured atop the drum containing site waste (see Appendix C). The waste was mixed for approximately 1 hour prior to collecting a baseline sample of the mixture. Then, the first treatment mixture was applied to the waste. The treatment mixture consisted of Oxone, a peroxymonosulfate oxidizing compound, and GnA, a patented "Green-Synthesized Nanoscale Iron Activator." In the reaction induced by the treatment mixture, Oxone is the source of sulfate radicals, while the GnA—a zero-valent iron (ZVI) source—acts as the catalyst for the reaction. As designed, production of free radicals in addition to the sulfate radicals should achieve higher oxidation capabilities and a broader spectrum of applicable targeted compounds to achieve greater degradation of PCB concentrations. Additionally, cobalt acetate (cobalt [II]) was added to the mixture at four separate periods during the treatment on May 15 and 16, 2012. A sample of the waste mixture was collected approximately 1 hour following each treatment. Samples were analyzed for PCBs on site by EPA laboratory personnel using a rapid micro-extraction method to provide an indication of the effectiveness of the treatment process. Samples were also submitted for confirmation analysis at the EPA Region 7 laboratory in Kansas City, Kansas. On May 18, 2012, post-treatment samples of all three phases of the waste were collected from the drum. An additional homogenized sample was also collected following final mixture of the treated waste.

For each sampling event, samples of LNAPL and sludge were collected as follows:

- In two 40-milliliter vials (two per sample) for analysis for volatile organic compounds (VOC).
- In two 40-milliliter vials for analysis for purgeable total petroleum hydrocarbons (TPH).
- In 8-ounce glass jars (two per sample) for analyses for PCBs, TPH-diesel range organics (DRO), TPH-oil range organics (ORO), and semivolatile organic compounds (SVOC).

Water samples to be analyzed for VOCs and purgeable TPH were collected in six 40-milliliter vials preserved with hydrochloric acid to a pH <2. Water samples to be analyzed for PCBs, SVOCs, TPH-DRO, and TPH-ORO were collected in 80-ounce amber glass jugs.

Mixed samples were collected from the drum by dipping an 8-ounce glass jar into the liquid during mixing of the waste. Then the mixture was transferred to the appropriate sample containers for analyses for VOCs, SVOCs, and PCBs.

Gas chromatography/mass spectrometry (GC/MS) was used to analyze for VOCs, SVOCs, and purgeable TPH. A GC/electron capture detector (ECD) method was used to analyze for PCBs, and a GC/flame ionization detector (FID) method was used for analysis for TPH-DRO/ORO. Table 1 below lists the samples collected and treatment compounds added during the process.

TABLE 1

TREATABILITY STUDY SAMPLE SUMMARY
FORMER LYONS DIECASTING COMPANY SITE, BUCKNER, MISSOURI

EPA Sample ID	Micro-Extraction Sample ID	Sample Matrix	Date	Time	Treatment Summary
5729-101	NA	Water	5/15/2012	0952	None
5729-1	NA	LNAPL	5/15/2012	1045	None
5729-201	NA	Sludge	5/15/2012	1048	None
5729-301	5730-1	Mix	5/15/2012	1211	None
5729-401	5730-2	Mix	5/15/2012	1400	1 gal Oxone + 1 gal GnA
5729-402	5730-3	Mix	5/15/2012	1500	2 gal Oxone + 2 gal GnA
5729-403	5730-4	Mix	5/15/2012	1601	3 gal Oxone + 3 gal GnA + 500 mL Cobalt(II) Acetate
5729-404	5730-5	Mix	5/15/2012	1702	4 gal Oxone + 4 gal GnA + 500 mL Cobalt(II) Acetate
5729-405	5730-6	Mix	5/16/2012	1015	4 gal Oxone + 4 gal GnA + 500 mL Cobalt(II) Acetate
5729-406	5730-7	Mix	5/16/2012	1106	5 gal Oxone + 5 gal GnA + 1L Cobalt(II) Acetate
5729-407	5730-8	Mix	5/16/2012	1216	6 gal Oxone + 6 gal GnA + 1L Cobalt(II) Acetate
5729-408	5730-9	Mix	5/16/2012	1316	7 gal Oxone + 7 gal GnA + 1.5L Cobalt(II) Acetate
5729-409	5730-10	Mix	5/16/2012	1415	8 gal Oxone + 8 gal GnA + 1.5L Cobalt(II) Acetate
5729-410	5730-11	Mix	5/16/2012	1513	9 gal Oxone + 9 gal GnA + 2L Cobalt(II) Acetate
5729-411	5730-12	Mix	5/16/2012	1614	10 gal Oxone + 10 gal GnA + 2L Cobalt(II) Acetate
5729-2	NA	LNAPL	5/18/2012	0921	10 gal Oxone + 10 gal GnA + 2L Cobalt(II) Acetate
5729-102	NA	Water	5/18/2012	0936	10 gal Oxone + 10 gal GnA + 2L Cobalt(II) Acetate
5729-202	NA	Sludge	5/18/2012	1015	10 gal Oxone + 10 gal GnA + 2L Cobalt(II) Acetate
5729-302	NA	Mix	5/18/2012	1109	10 gal Oxone + 10 gal GnA + 2L Cobalt(II) Acetate
5729-105-FB	NA	Water	5/16/2012	1522	None
5729-106-FB	NA	Water	5/16/2012	1522	None

Notes:

EPA U.S. Environmental Protection Agency
FB Field blank
gal Gallon
GnA Green-Synthesized Nanoscale Iron Activator
ID Identification
L Liter
LNAPL Light Non-Aqueous Phase Liquid
mL Milliliter
NA Not applicable

3.0 ANALYTICAL DATA SUMMARY

For each sample submitted to the EPA laboratory, a field sheet was completed that contained pertinent data, including analyses to be performed, sample time/date, and location (see Appendix D). An analytical data summary table is included in Appendix E, and the analytical data reports from the EPA Region 7 laboratory for Analytical Service Requests (ASR) 5729 and 5730 are in Appendix F. All PCB results were compared to standards specified in the Toxic Substances Control Act (TSCA). Results for other analyzed constituents will be evaluated to ensure selection of an appropriate disposal option for the treated waste.

3.1 MIXED SAMPLES

The mixed samples collected throughout the treatability study were submitted for analyses for VOCs, SVOCs, and PCBs. Table 2 below summarizes PCB concentrations in all mixed samples collected throughout the study. Aroclor 1242 was detected above the TSCA PCB waste disposal benchmark of 50 milligrams per kilogram (mg/kg) in three mixed samples—5729-402, -404, and -405—at concentrations of 52, 74, and 80 mg/kg, respectively. In addition, samples 5729-406, -408, -409, and -411 contained Aroclor 1242 at concentrations ranging from 61 J to 90 J mg/kg, also exceeding the established benchmark. The data qualifier "J" indicates that identification of the analyte is acceptable, but the reported concentration is an estimate. Based on those results, the treatment method did not appear to decrease concentrations of PCBs in the mixed waste throughout the course of the study. Results for other analytes are summarized in Appendix E.

TABLE 2

PCBS IN MIXED SAMPLES
FORMER LYONS DIECASTING COMPANY SITE, BUCKNER, MISSOURI

Sample Date	Sample Time	Sample Matrix	Traditional Laboratory Extraction		On-Site Micro-extraction	
			EPA Sample ID	PCBs – Aroclor 1242 (mg/kg)	Micro-Extraction Sample ID	PCBs – Aroclor 1242 (mg/kg)
5/15/2012	1211	Mix	5729-301	15	5730-1	14
5/15/2012	1400	Mix	5729-401	35	5730-2	30
5/15/2012	1500	Mix	5729-402	52	5730-3	35
5/15/2012	1601	Mix	5729-403	34	5730-4	34
5/15/2012	1702	Mix	5729-404	74	5730-5	35
5/16/2012	1015	Mix	5729-405	80	5730-6	43
5/16/2012	1106	Mix	5729-406	63 J	5730-7	40
5/16/2012	1216	Mix	5729-407	44	5730-8	41
5/16/2012	1316	Mix	5729-408	90 J	5730-9	39
5/16/2012	1415	Mix	5729-409	62 J	5730-10	41
5/16/2012	1513	Mix	5729-410	46 J	5730-11	43
5/16/2012	1614	Mix	5729-411	61 J	5730-12	36

Notes:

EPA U.S. Environmental Protection Agency
ID Identification
J The identification of the analyte is acceptable; the reported value is an estimate.
mg/kg Milligrams per kilogram
PCB Polychlorinated biphenyl

3.2 LNAPL SAMPLES

Pre- and post-treatment LNAPL samples collected from the waste were submitted for analyses for PCBs, VOCs, SVOCs, TPH-DRO/ORO, and purgeable TPH. Aroclor 1242 was detected in pre-treatment sample 5729-1 and post-treatment sample 5729-2 at concentrations of 490 and 502 mg/kg, respectively—both exceeding the TSCA PCB waste disposal benchmark of 50 mg/kg. Therefore, the treatment did not appear to decrease concentrations of PCBs in the LNAPL portion of the waste. Results for other analytes are summarized in Appendix E.

3.3 WATER SAMPLES

Pre- and post-treatment samples collected from the water phase of the waste were submitted for analyses for PCBs, VOCs, SVOCs, TPH-DRO/ORO, and purgeable TPH. Aroclor 1242 was detected in pre-treatment sample 5729-101 and post-treatment sample 5729-102 at 1,800 and 699 J micrograms per liter (µg/L), respectively. These data indicate a reduction in the concentration of PCBs after treatment. However, sampling results from previous assessments had been non-detect for PCBs in water collected

from the pit. Therefore, the samples collected for this treatability study may not be representative of water in the waste pit. Results for other analytes are summarized in Appendix E.

3.4 SLUDGE SAMPLES

Pre- and post-treatment samples collected from the sludge phase of the waste were submitted for analyses for PCBs, VOCs, SVOCs, TPH-DRO/ORO, and purgeable TPH. Aroclor 1242 was detected in pre-treatment sample 5729-201 and post-treatment sample 5729-202 at 2,100 and 240 mg/kg, respectively. These results indicate a reduction in the concentration of PCBs after treatment. Results for other analytes are summarized in Appendix E.

Table 3 summarizes analytical results for Aroclor 1242 in pre- and post-treatment samples.

TABLE 3

PCBS IN PRE-TREATMENT AND POST-TREATMENT SAMPLES
FORMER LYONS DIECASTING COMPANY SITE, BUCKNER, MISSOURI

Pre-Treatment Samples					Post-Treatment Samples				
Sample Date	**Sample Time**	**Sample Matrix**	**EPA Sample ID**	**PCBs – Aroclor 1242 (mg/kg)**	**Sample Date**	**Sample Time**	**Sample Matrix**	**GC/ECD EPA Sample ID**	**PCBs – Aroclor 1242 (mg/kg)**
5/15/2012	1045	LNAPL	5729-1	490	5/18/2012	0921	LNAPL	5729-2	502
5/15/2012	0952	Water	5729-101	1,800*	5/18/2012	0936	Water	5729-102	699*
5/15/2012	1048	Sludge	5729-201	2,100	5/18/2012	1015	Sludge	5729-202	240
5/15/2012	1211	Mix	5729-301	15	5/18/2012	1109	Mix	5729-302	39
5/16/2012	1522	Water	5729-105-FB	ND	NA	NA	NA	NA	NA
5/16/2012	1522	Water	5729-106-FB	ND	NA	NA	NA	NA	NA

Notes:

* Result reported in micrograms per liter
EPA U.S. Environmental Protection Agency
FB Field blank
GC/ECD Gas chromatography/electron capture detector
ID Identification
LNAPL Light non-aqueous phase liquid
mg/kg Milligrams per kilogram
NA Not applicable
ND Not detected
PCB Polychlorinated biphenyl

4.0 SUMMARY

Tetra Tech START conducted a treatability study at the Former Lyons Diecasting Company site from May 14 through 18, 2012. The purpose of the treatability study was to determine the effectiveness and feasibility of a treatment method developed by ORD as a cost-effective alternative for remediation of PCB-contaminated waste at the site. Although the ferrous–peroxymonosulfate oxidative treatment was effective in a controlled bench-scale environment, the results of this pilot scale study were mixed. Additional optimization of treatment methods and cost analysis are needed before this technology could be fully evaluated for full-scale in-situ treatment at the Lyons site.

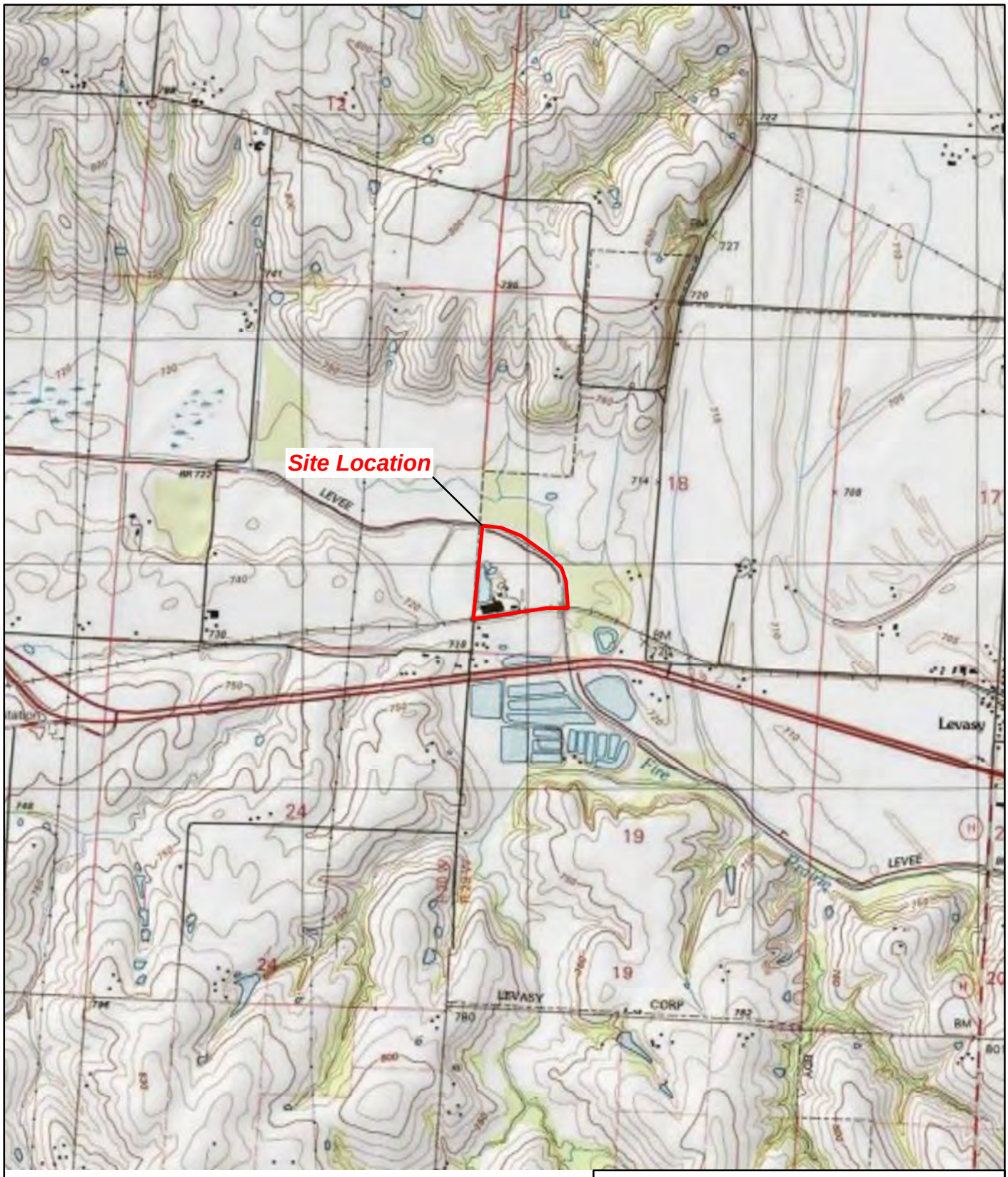
5.0 REFERENCES

Environmental Protection Agency, U.S. (EPA). 2012. CERCLIS database. Accessed: November 28, 2012. On-line address: http://oaspub.epa.gov/enviro/fii_query_dtl.disp_program_facility?pgm_sys_id_in=MON000705886&pgm_sys_acrnm_in=CERCLIS

Missouri Department of Natural Resources (MDNR). 2010. Preliminary Assessment/Removal Site Evaluation Report. Former Lyons Diecasting Company Site. May 11.

APPENDIX A

FIGURES



N

1,000 0 1,000

Feet

Source: USGS Buckner, MO 7.5 Minute Topo Quads, 1997

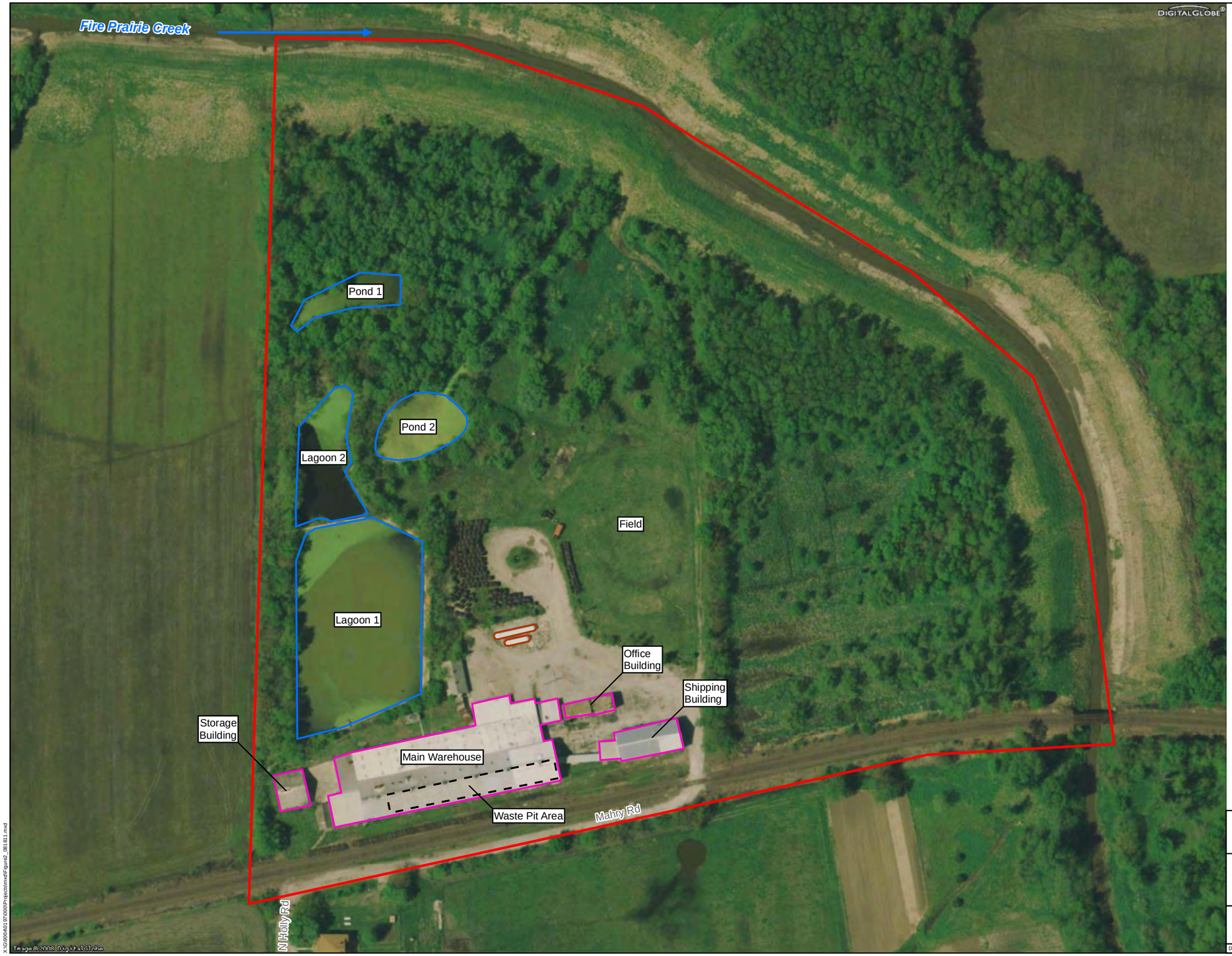
Former Lyons Diecasting Company Site
Buckner, Missouri

Figure 1
Site Location Map

TETRA TECH EM INC.

Date: 8/25/11 Drawn By: Gustavo Orozco Project No: X9004.L.10.0197.000

X:\G\9004\01\97\000\Projects\mxd\Figure1_081811.mxd



Legend

- Property boundary
- Building boundary
- Pond/Lagoon boundary
- Propane tank
- Waste pit boundary

N

75 0 75

Feet

Source: GlobeXplorer Aerial Imagery, DigitalGlobe, 2008; Missouri Department of Naturals Resources, Figure 6, 2009.

Former Lyons Diecasting Company Site
Buckner, Missouri

Figure 2

Site Layout Map

TETRA TECH EM INC.

Date: 09/09/10 Drawn By: Gustavo Orozco Project No: X9004.L.10.0197.000

X:\GIS\9004\01970909\Projects\mxd\Figure2_081811.mxd

Legend

- Building boundary
- Property boundary
- PPE Personal protective equipment

Source: GlobeXplorer Aerial Imagery, DigitalGlobe, 2008

N

0 15 30

Feet

Former Lyons Diecasting Company Site
Buckner, Missouri

Figure 3

Treatability Study Layout Map

TETRA TECH

Date: 02/06/13 Drawn By: Nick Wiederholt Project No: X9004.L.10.0197.000

X:\G\9004\0197\000\Projects\mxd\Figure3_012313.mxd

APPENDIX B

SITE LOGBOOK

5-14-12 Lyons Treatability

0840 STM, Hetfi arrive @ EPA cavo. meet with OSC Days with Region 7. Also meet David Reisman & Sohail Al-Abed with EPA ORD in Cincinnati. Discuss health & safety issues & logistics of upcoming treatability study.

1041 Begin loading equipment & supplies

1240 Depart cavo en route to site

1300 lunch

1330 Arrive @ Lyons site, unload equipment & stage for tomorrows activities.

1612 Depart site en route to office.

1707 Arrive @ office, end of day.

5-14-12

5-15-12

0700 STM, Hetfi, Dillon arrive @ office. Load equipment & supplies.

0720 Depart office en route to EPA cavo

0740 Arrive @ cavo, meet with OSC Days. Load equipment.

0812 Depart cavo en route to site

0852 Arrive on site, Margie St Germain & David Wilson are currently on-site preparing for rapid extraction analysis

0952 Collect baseline influent water sample, Lyons Digesting Baseline Water (LDBS LDBW-1) [5729-101] MS/MSD collected on this sample.

1045 collect baseline oil sample (LDBO-1) [5729-1]

1048 Collect baseline sludge sample LDBS-1 [5729-201]

1100 Begin mixing contents of drum.

1211 Collect baseline mixture sample LDMS-1, & Split sample for rapid extraction. [5729-301] [5730-1]

5-15-12

Rite in the Rain

5-15-12

1215 Add first round of Oxone + GnA to the mixture. Mixing has been continuous. 1 gallon of each added

1400 Collect first treated mixture sample LDMS-2 [5729-401] [5730-2]

1402 Add second treatment to the PCB (1 gallon Oxone, 1 gallon GnA)

1500 Collect Second treated mixture sample LDMS-3 [5729-402] [5730-3]

1504 Add third round of treatment to PCB slurry. (1 gallon Oxone, 1 gallon GnA & 500 mL Cobalt Acetate)

1522 Process water trip blanks [5729-105-FB], [5729-106-FB]

1601 Collect third treated mixture sample, LDMS-4 [5729-403], [5730-4]

1608 Reposition chain / clamp mixing unit to prevent rubbing against the side of drum

1620 Add fourth round of treatment to PCB slurry. (1 gallon, Oxone, 1 gallon GnA)

1702 Collect fourth treated mixture sample [5729-404] [5730-5] LDMS-5

5-15-12

1736 Begin wrapping up site activities.

1757 Depart site

1811 Arrive office, put samples in refrigerator

1828 End of day.

5-15-12

S-16-12 KC

0600 STMs Heflin & Dillon arrive site office, will process samples for delivery to lab.

0700 Depart office en route to EPA Cavco.

0730 Arrive @ Cavco, load equipment. Meet OSC Dave

0803 Depart Cavco en route to site

0840 Arrive on-site, begin prepping for days activities.

0915 Start mixing PCB slurry.

1015 Collect fifth treated sample from the slurry LDMS-6 S729-405 S730-6

1020 Add fifth round of treatment to PCB slurry (1 gallon Oxone, 1 gallon GnA, 500 mL of Cobalt Acetate)

1106 Collect sixth treated sample from the slurry LDMS-7 S729-406 S730-7

1115 Add sixth round of treatment (1 gallon Oxone, 1 GnA)

S-16-12

S-16-12

1216 Collect seventh treated sample from the slurry. LDMS-8 S729-407 S730-8

1221 Add seventh round of treatment (1 gallon Oxone, 1 gallon GnA, 500 mL Cobalt Acetate)

1316 Collect eighth treated sample from slurry LDMS-9 S729-408 S730-9

1321 Add eighth round of treatment (1 gallon Oxone, 1 gallon GnA)

1415 Collect ninth treated sample from slurry. LDMS-10 S729-409 S730-10

1422 Add ninth round of treatment (1 gallon Oxone, 1 gallon GnA, 500 mL Cobalt Acetate)

1513 Collect tenth treated sample from the slurry. LDMS-11 S729-410 S730-11

1518 Add tenth round (final treatment) to the slurry (1 gallon Oxone, 1 gallon GnA)

S-16-12

5-16-12

1614 Collect eleventh treated sample from the slurry LDMS-12 S730-12 S729-411

1631 Begin wrapping up site activities. Rapid extraction process will finish analysis of S730-12

1713 Depart site, en route to KC office.

1741 Arrive office, put samples in refrigerator.

1800 End of day.

5-16-12

5-18-12

0630 STM Heflin arrive KC office, load equipment & supplies

0701 Depart office en route to EPA Cayuga.

0728 Arrive EPA Cayuga, meet with OSC Davis.

0911 Arrive on-site

0921 Collect final oil phase sample LDFO-1 S729-2

0936 Collect final oil phase sample LDFW-1 S729-102

1015 Collect final sludge phase sample LDFS-1 S729-202

1030 Begin mixing drum.

1109 Collect final mixture sample LDMS-13 S729-302

APPENDIX C

PHOTOGRAPHIC LOG

Former Lyons Diecasting Company Site
Buckner, Missouri

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows the covered walkway between the Sample Processing Area and the Rapid Extraction Laboratory.	1
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: West	PHOTOGRAPHER	EPA	05/16/2012

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows the Sample Processing Area and the Personal Protective Equipment (PPE) Station outside the entrance to the main warehouse.	2
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: South	PHOTOGRAPHER	EPA	05/16/2012

Former Lyons Diecasting Company Site
Buckner, Missouri

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows equipment at the Rapid Extraction Laboratory.	3
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: Southwest	PHOTOGRAPHER	EPA	05/16/2012

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows a drum mixer positioned atop the treatment drum containing site waste.	4
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: NA	PHOTOGRAPHER	EPA	05/16/2012

Former Lyons Diecasting Company Site
Buckner, Missouri

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows U.S. Environmental Protection Agency (EPA) and Superfund Technical Assessment and Response Team (START) personnel conducting sampling during treatment of the drum containing site waste.	5
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: Southwest	PHOTOGRAPHER	EPA	05/16/2012

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows EPA personnel conducting rapid extraction analysis of the samples collected during treatability study activities.	6
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	EPA	05/16/2012

Former Lyons Diecasting Company Site
Buckner, Missouri

TETRA TECH PROJECT NO. X9004.10.0197.000	DESCRIPTION	This photograph shows the waste treatment area following completion of treatability study activities.	7
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: Southeast	PHOTOGRAPHER	EPA	05/18/2012

APPENDIX D

EPA FIELD SHEETS AND CHAIN-OF-CUSTODY RECORDS

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Mike Davis	Lyons Diecasting	15 / 5 / 12	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	CUBITAINER	8oz BOTTLE	8oz BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
5729-1		2			2					X	
-101			8		3	X					@ VOA Set with 6 Vials
-105-FB					1	X					5/16/12
-106-FB					1	X					VOA Set with 4 Vials
-201		2			2					X	
-301		2			2					X	
-401		2			1					X	VOA Set with 6 Vials
-402		2			1					X	
-403		2			1					X	
-404		2			1					X	

(NUMBERS OF CONTAINERS PER SAMPLE NUMBER)

All vials had pinsize to dime size air bubbles @ 5/16/12

ASR Not Complete

Clr. Temp. Rec'd. bet. 0-1°C 5/16/12

DESCRIPTION OF SHIPMENT

32 PIECE(S) CONSISTING OF ______ BOX(ES)

2 ICE CHEST(S); OTHER ______

MODE OF SHIPMENT

___ COMMERCIAL CARRIER ______

___ COURIER

✓ SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
(SAMPLER) [signature] — SEALED ☐ UNSEALED ☒	5-16-12	0800	Quan Do — SEALED ☐ UNSEALED ☒	delivery Sample
Quan Do — SEALED ☐ UNSEALED ☒	5.16.12	10:51	D. Wiggins — SEALED ☐ UNSEALED ☐	Rec'd at lab
SEALED ☐ UNSEALED ☐			SEALED ☐ UNSEALED ☐	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION	SHEET
Mike Davis	Lyons Diecasting	16 DAY 5 MONTH 12 YEAR	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	CUBITAINER	8oz. BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5729-406		2			1					X	
-405		2			1					X	
-407		2			1					X	
-408		2			1					X	
-409		2			1					X	
-410		2			1					X	
5729-411		2			1					X	
											Samples Del. Let D-1 ~ 5/17/12

ASR Not Complete

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
21 PIECE(S) CONSISTING OF ____ BOX(ES) (~5/17/12)	____ COMMERCIAL CARRIER: ____
1 ICE CHEST(S): OTHER ____	____ COURIER
	X SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☐ SEALED UNSEALED ☒	5-17-12	0900	R. Wiggans ☐ SEALED UNSEALED ☒	Rec'd at lab
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Mike Davis	Lyons Diecasting	18 / 5 / 12	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	CUBITAINER	8oz BOTTLE	800z. BOTTLE	VOA set w/ 4 BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
5729-2		2	3		2					X	Oil
5729-102			3	1	~~2~~ 1	X					1 VOA Set with 2 vials 1 with 4 oz ST
5729-202		2		1	1 ~~2~~					X	" "
5729-302		2			2					X	

(NUMBERS OF CONTAINERS PER SAMPLE NUMBER)

ASR Complete

Samples didn't have time to cool down

Clr. Temps. Rec'd bet 19.4 – 26.3°C 5/18/12 L

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
12 PIECE(S) CONSISTING OF ____ BOX(ES)	____ COMMERCIAL CARRIER:
2 ICE CHEST(S); OTHER ____	____ COURIER
	X SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☐ SEALED UNSEALED ☒	5-18-12	1219	RDWiggins ☐ SEALED UNSEALED ☒	Rec'd at lab
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 1 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-1-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Oil sample

External Sample Number: ~~LBBO~~ LDBO-1

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/5/12 10:45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Waste by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	★2 VOCs in ~~Liquid~~ Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Sample Comments:

(N/A)

★Changed per BC email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 2 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-2-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Oil sample

External Sample Number: ~~LDMS-2~~ LDFO-1

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** ~~5/15/12~~ 1400
Longitude: ___ ___ ___ **End:** 5/18/12 09:21

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Waste by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in ~~Liquid~~ Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Sample Comments:

(N/A)

A changed per email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 101 **QC Code:** __ **Matrix:** Water **Tag ID:** 5729-101-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Water sample

External Sample Number: LDBW-1

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	09:52
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water (PCBs 08 5/16/12)
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 TPH Volatiles in water by GC/MS

Sample Comments:

(N/A)

MS/MSD 5/16/12

* Triple Volume

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 102 **QC Code:** __ **Matrix:** Water **Tag ID:** 5729-102-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Water sample

External Sample Number: LDFW-2

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/12 09:36

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 TPH Volatiles in water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 105 **QC Code:** FB **Matrix:** Water **Tag ID:** 5729-105-FB

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Water TPH VOA (GRO/OA-1) Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)		**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/10/12	07:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 TPH Volatiles in water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 106 **QC Code:** FB **Matrix:** Water **Tag ID:** 5729-106-FB

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Water LDL VOA Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)		**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/10/12	07:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 201 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5729-201-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Sludge sample

External Sample Number: ~~LB~~ LDBS-1

			Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)			
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	10:48	
Longitude: ___ ___ ___	**End:**	__/__/__	__:__	

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample collected
Routine VOAs not 5035 per phone call on 5/16/12
per changed Lims @ SR @ 1:10 pm
5/16/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 202 **QC Code:** __ **Matrix:** Solid **Tag ID:** 5729-202-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: Sludge sample

External Sample Number: LDFS-1

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/12 10:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
4 - 40mL VOA vials ~~(soil VOA 5035)~~	4 Deg C, ~~H2O + sodium bisulfate (in 2 vials)~~	14 Days	1 VOC's ~~in Soil at Low Levels by GC/MS Closed-System Purge and Trap~~
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 301 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-301-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (1) Mixture of oil, water & sludge sample

External Sample Number: LDMS-1

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	12:11
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 TPH Volatiles in Waste by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Solid * Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	2 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Sample Comments:

(N/A)

* Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 302 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-302-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (1) Mixture of oil, water & sludge sample

External Sample Number: LDMS-13

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/12 11:09

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 TPH Volatiles in Waste by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ * Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	2 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Sample Comments:

(N/A)

* Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 401 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-401-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-2

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 14:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 4 oz glass	4 Deg C	14	Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
6 ~~2~~ - 40mL VOA vial	4 Deg C	14	Days	2 VOCs in ~~Liquid~~ Solid* Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14	Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

changed (per BE) to
* solid demail dated 6/27/12

* Triple Volume

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 402 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-402-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-3

Expected Conc: (or Circle One: Low Medium High)		**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	1500
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ * Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

* changed per RE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 403 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-403-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-4

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	1601
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

Changed per KL Email dated 6/27/12 mk

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 404 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-404-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-S

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 12:02

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

Ad changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 405 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-405-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-6

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 10:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ * Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

* Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 406 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-406-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LOMS-7

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/12	11:06
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Soil Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

* Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 407 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-407-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-8

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/12	12:16
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Soil Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

*Charged per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 408 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-408-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-9

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/12	13:16
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs ~~in Liquid~~ *Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

*changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 409 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-409-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-10

Expected Conc: (or Circle One: Low Medium High)

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	5/16/12	14:15
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 4 oz glass	4 Deg C	14	Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14	Days	2 VOCs in ~~Liquid~~ Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14	Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

* Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 410 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-410-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-11

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 15:13

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Hazardous Matrices by GC/MS ☆ Solids
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

☆ Changed per BE email dated 6/27/12

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5729 **Sample Number:** 411 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5729-411-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: (2) Mixture of oil, water & sludge sample

External Sample Number: LDMS-12

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 16:14

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	2 Semi-Volatile Organic Compounds in Hazardous Waste
2 - 40mL VOA vial	4 Deg C	14 Days	2 VOCs in ~~Liquid~~ Solid Hazardous Matrices by GC/MS
1 - 8 oz glass	4 Deg C	14 Days	2 PCBs in Hazardous by GC/EC

Sample Comments:

(N/A)

*Changed per BE email dated 6/27/12

Sample Collected By: TT/START

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Michael B Davis	Former Lyons Decantation	15 / 5 / 2012	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: 1L CUBITAINER	BOTTLE	125Y BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
5730-1	1		1							✓	
5730-2	1		1							✓	
5730-3	1		1							✓	
5730-4	1		1							✓	
5730-5	1 ✓		1 ✓							✓	

COC corrected to show that 5 samples were collected + Rec'd. 5/16/12 ✓

NOTE: Samples had one extraction performed in the field by David Wilson + Megan St Germain

ACTIVITY NOT COMPLETE MWS 5/15/12

MSG delivered samples directly to BD Lab @ 4°C ✓ 5/16/12

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
5 PIECE(S) CONSISTING OF _____ BOX(ES)	____ COMMERCIAL CARRIER: _____
_____ ICE CHEST(S): OTHER _____	X SAMPLER CONVEYED
	_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD 5/16/12

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
M St Germain ☐ SEALED ☒ UNSEALED	5/16/12	19:15P	Nicole Rolls ☐ SEALED ☒ UNSEALED	Analysis
RELINQUISHED BY	DATE	TIME	RECEIVED BY FedEx	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	

7-EPA-9262(Revised 5/85)

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION	SHEET
MICHAEL B DAVIS	FORMER LYONS DIECASTING	DAY 16 MONTH 5 YEAR 2012	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	~~1L~~ CUBITAINER	BOTTLE	8 oz BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc)
5730-6	~~1~~		1							✓	
5730-7	~~1~~		1							✓	
5730-8	~~1~~		1							✓	
5730-9	~~1~~		1							✓	
5730-10	~~1~~		1							✓	
5730-11	~~1~~		1							✓	
5730-12	~~1~~		1							✓	

NUMBERS OF CONTAINERS PER SAMPLE NUMBER

COC corrected to show 8 oz jars rec'd, NOT cubi's. ✓ 5/17/12

ACTIVITY COMPLETE

NOTE: Samples were field extracted. mwg

MSG delivered samples directly to BD Ref. @ 4°C 5/17/12

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
1 PIECE(S) CONSISTING OF ____ BOX(ES)	____ COMMERCIAL CARRIER: ____
∅ ICE CHEST(S); OTHER ____	✓ COURIER
	SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD 5/17/12

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Margaret G. [illegible] ☐ SEALED UNSEALED ☑	5/16/12	18:30	Nicole Roblez ☐ SEALED UNSEALED ☑	Analyze
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY 800A ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED UNSEALED ☐	DATE	TIME	RECEIVED BY ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 1 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-1-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-1

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 12:11

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 2 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-2-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-2

	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/12	14:00
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 3 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-3-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-3

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 15:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 4 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-4-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-4

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 16:01

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 5 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-5-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-5

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/12 1702

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 6 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-6-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-6

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 10 15 ~~10:20~~

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 7 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-7-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-7

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 1106

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 8 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-8-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-8

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 12:16

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 9 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-9-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-9

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 1316

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 10 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-10-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-10

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 14:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 11 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-11-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-11

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 15:13

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 5730 **Sample Number:** 12 **QC Code:** __ **Matrix:** Waste **Tag ID:** 5730-12-__

Project ID: MDA7X300 **Project Manager:** Mike B. Davis
Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling
City: Buckner **State:** Missouri
Program: Superfund
Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE **Site ID:** A7X3 **Site OU:** 00

Location Desc: _____

External Sample Number: LDMS-12

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/12 16:14

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Sample Comments:

(N/A)

Sample Collected By: TT/START

APPENDIX E

ANALYTICAL SUMMARY TABLE

Treatability Study - Analytical Data Summary
Lyons Diecasting Company Site
Buckner, Missouri

EPA Sample ID	Sample Type	PCBs (mg/kg)	Aroclor 1242	Aroclor 1248	VOCs (mg/kg)	Acetone	Benzene	Bromoform	Bromomethane	2-Butanone	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cyclohexane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichloropropane	Isopropylbenzene	Methyl Acetate	Methylcyclohexane	Methylene Chloride	Naphthalene	1,1,2,2-Tetrachloroethane	Vinyl Chloride	m and/or p-Xylene	o-Xylene	SVOCs (mg/kg)	bis(2-ethylhexyl)phthalate	Di-n-octylphthalate	TPH (mg/kg)	Semi-Volatile TPH (DRO & ORO)	TPH Volatiles (Purgeable TPH)
5729-1	Oil		**490**	99 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		**136J**	**125J**		**90,300 J**	2.0 U
5729-2	Oil		**502**	98 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	**0.65**	**5.93**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	**0.55**	1.0 U	0.5 U	0.5 U		N/A R	N/A R		**28,700**	**4.43**
5729-101	Water*		1,800	160 U		**30 J**	1.0 U	1.0 U	1.0 U	5.0 U	**2**	**5.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	100 U	1.0 U	1.0 U	1.0 U	**3.0**	5.0 U	1.0 U	1.0 U	2.0 UJ	1.0 U	1.0 U	2.0 U	1.0 U		100 U	100 UJ		**25.6**	50 U
5729-102	Water*		610 J	160 U		**730 J**	**1.4**	1.0 U	**3.7**	**75**	**6.6**	**1.5**	**38**	**42**	**5,700**	1.0 U	1.0 U	1.0 U	10 U	**5.1**	**2.9**	**2.2**	1.0 U	**13**	1.0 U	**25**	2.0 UJ	1.0 U	**3.3**	2.0 U	1.0 U		**21**	**17.2**		**14.9**	50 U
5729-201	Sludge		**2,100**	190 U		**710 J**	9.6 UJ	19 UJ	9.6 UJ	**170 J**	**23 J**	9.6 UJ	9.6 UJ	9.6 UJ	**13 J**	**48 J**	**43 J**	**24 J**	**120 J**	9.6 UJ	9.6 UJ	9.6 UJ	**760 J**	19 UJ	**690 J**	9.6 UJ	210 UJ	**1,200 J**	19 UJ	**170 J**	**75 J**		63.2 U	63.2 U		**9,670**	50 UJ
5729-202	Sludge		**240**	73 U		**290**	8.1 U	16 U	8.1 U	**84 J**	**13**	**26 J**	**53**	**110 J**	**4,600 J**	8.1 UJ	8.1 U	8.1 U	8.1 U	**10.0 J**	8.1 U	8.1 U	**59 J**	16 U	**67J**	**37 J**	38 UJ	**120 J**	16 U	**20 J**	8.1 UJ		65.7 U	65.7 U		**13,000**	**900 J**
5729-301	Mix		**15**	9.9 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	100 UJ		NA	NA
5729-302	Mix		**39**	9.7 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.71**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		N/A R	N/A R		NA	NA
5729-401	Mix		**35**	9.8 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	100 UJ		NA	NA
5729-402	Mix		**52**	9.9 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-403	Mix		**34**	9.8 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-404	Mix		**74**	9.9 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**1.13**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-405	Mix		**80**	10.0 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**1.13**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-406	Mix		**63 J**	9.9 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.24**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-407	Mix		**44**	10.0 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.56**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		100 UJ	N/A R		NA	NA
5729-408	Mix		**90 J**	9.8 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.47**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		N/A R	N/A R		NA	NA
5729-409	Mix		**62 J**	9.8 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.76**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		N/A R	N/A R		NA	NA
5729-410	Mix		**46 J**	9.8 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.79**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		N/A R	N/A R		NA	NA
5729-411	Mix		**61 J**	9.9 U		5.0 U	0.5 U	0.5 U	1.0 U	5.0 U	0.5 U	0.5 U	1.0 U	0.5 U	**2.9**	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U		N/A R	N/A R		NA	NA
5730-1	Mix		**14**	**9.8**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-2	Mix		**30**	**20**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-3	Mix		**35**	**22**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-4	Mix		**34**	**22**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-5	Mix		**35**	**26**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-6	Mix		**43**	**27**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-7	Mix		**40**	**26**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-8	Mix		**41**	**29**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-9	Mix		**39**	**26**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-10	Mix		**41**	**26**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-11	Mix		**43**	**26**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
5730-12	Mix		**36**	**22**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA
TSCA-HOCSBPCBRW	**mg/kg**		**50.0**	**50.0**		**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**		**NE**	**NE**		**NE**	**NE**

Notes:

Bold result indicates a detection.
Shaded result indicates the reported concentration exceeds a benchmark value.

*	Results reported in micrograms per liter
DRO	Diesel range organics
EPA	U.S. Environmental Protection Agency
ID	Identification
J	The identification of the analyte is acceptable; the reported value is an estimate.
mg/kg	Milligrams per kilogram
NA	Not analyzed
N/A R	The presence or absence of the anlayte cannot be determined due to lab quality control issues
NE	Not established
ORO	Oil range organics
PCB	Polychlorinated biphenyl
TPH	Total petroleum hydrocarbons
SVOC	Semi-volatile organic compounds
TSCA	Toxic Substances Control Act High Occupancy Cleanup Standard for Bulk PCB Remediation Waste
U	The analyte was not detected at or above the reporting limit.
UJ	The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.
VOC	Volatile Organic Compounds

APPENDIX F

ANALYTICAL DATA

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 07/03/2012

Subject: Transmittal of Sample Analysis Results for ASR #: 5729

Project ID: MDA7X300

Project Description: Former Lyons Diecasting Company - Removal Assessment sampling

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To: Mike B. Davis
SUPR/ERSB/PPSS

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Mike B. Davis Org: SUPR/ERSB/PPSS Phone: 913-551-7328

Project ID: MDA7X300

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Location: Buckner State: Missouri Program: Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Purpose: Site Cleanup Support GPRA PRC: 303DC6

Removal Assessment/Treatability Study.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

Units: Specific units in which results are reported.

% = Percent
ug/kg = Micrograms per Kilogram
ug/L = Micrograms per Liter
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.
R = The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.
U = The analyte was not detected at or above the reporting limit.
J = The identification of the analyte is acceptable; the reported value is an estimate.

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Waste	LDBO-1		05/15/2012	10:45			05/16/2012
2	__	Waste	LDFO-1		05/18/2012	09:21			05/18/2012
101	__	Water	LDBW-1		05/15/2012	09:52			05/16/2012
102	__	Water	LDFW-2		05/18/2012	09:36			05/18/2012
105	FB	Water	Water TPH VOA (GRO/OA-1) Trip Blank sample		05/10/2012	07:30			05/16/2012
106	FB	Water	Water LDL VOA Trip Blank sample		05/10/2012	07:30			05/16/2012
201	__	Solid	LDBS-1		05/15/2012	10:48			05/16/2012
202	__	Solid	LDFS-1		05/18/2012	10:15			05/18/2012
301	__	Waste	LDMS-1		05/15/2012	12:11			05/16/2012
302	__	Waste	LDMS-13		05/18/2012	11:09			05/18/2012
401	__	Waste	LDMS-2		05/15/2012	14:00			05/16/2012
402	__	Waste	LDMS-3		05/15/2012	15:00			05/16/2012
403	__	Waste	LDMS-4		05/15/2012	16:01			05/16/2012
404	__	Waste	LDMS-5		05/15/2012	17:02			05/16/2012
405	__	Waste	LDMS-6		05/16/2012	10:15			05/17/2012
406	__	Waste	LDMS-7		05/16/2012	11:06			05/17/2012
407	__	Waste	LDMS-8		05/16/2012	12:16			05/17/2012
408	__	Waste	LDMS-9		05/16/2012	13:16			05/17/2012
409	__	Waste	LDMS-10		05/16/2012	14:15			05/17/2012
410	__	Waste	LDMS-11		05/16/2012	15:13			05/17/2012
411	__	Waste	LDMS-12		05/16/2012	16:14			05/17/2012

Analysis Comments About Results For This Analysis

1 PCBs in Soil by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Basis: Dry

Samples: 201-__ 202-__

Comments:
The reporting limits have been raised by a factor of more than 1000 for samples 201 and 202 due to very high innate Aroclor 1242.

1 Percent Solid

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.9F

Basis: N/A

Samples: 201-__ 202-__

Comments:

1 Semi-Volatile Organic Compounds in Soil

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.2G (see comments)

Basis: Dry

Samples: 201-__ 202-__

Comments:
Due to the oily nature of these samples, the final extracts could not be concentrated below a final volume of 5mL. Further dilutions were performed at the bench. The reporting limits have been adjusted accordingly.

For 5729-202, di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to a low internal standard response.

1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Basis: Dry

Samples: 201-__ 202-__

Analysis Comments About Results For This Analysis

Comments:

1 TPH Volatiles in Soil by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.19B

Basis: Dry

Samples: 201-__ 202-__

Comments:
Sample vials had significant head space. Samples were very oily, and showed a "Diesel-like Pattern" when analyzed. The oil caused issues with internal standards and surrogates.

There were hits for the GRO compounds, but values for sample 201 did not show the correct ratio to qualify as TPH. High amounts of Xylene were seen. For quantitated component values, (including high Xylene values) the VOA Soil samples should provide usable data.

Sample 201 was reported with a UJ-code, due to low internal standard response and poor surrogate recovery.

Sample 202 was reported with a J-code. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low internal standard response. The actual concentration for this analyte may be lower than the reported value.

1 VOCs in Solid Matrices by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.15E

Basis: Dry

Samples: 201-__ 202-__

Comments:
TIC peaks indicate a large amount of "Diesel Compounds" or Oil. There was also an oily texture and smell to the soil samples. The oil in the samples caused interferences with several aspects of analysis for these samples. Sample vials were also not filled completely to the top and had significant head-space.

Dichlorodifluoromethane, 2-Hexanone and 1,2-Dibromo-3-Chloropropane
have reporting limits raised to 10ug/kg, due to the initial instrument calibration curve not meeting linearity specifications..

Dichlorodifluoromethane, Vinyl Chloride, Methyl Acetate, Dibromochloromethane and Bromoform have had the Reporting Limit raised to 10ug/kg due to changes in instrument sensitivity.

Analysis	Comments About Results For This Analysis

Chloromethane was above the curve in sample 202. This value has been reported with a J-code to indicate that it is an estimate.

Acetone, Chlorobenzene, 1,1,2,2-Tetrachlorethane, Isopropylbenzene and Methylcyclohexane were above the curve in sample 201. These values have been reported with a J-code to indicate that they are estimates.

Dichlorodifluoromethane was UJ-coded in samples 201 and 202. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity specifications. The actual reporting limit may be higher than the reported value.

Chloromethane was J-coded in samples 201 and 202. Methylene Chloride was J-coded in sample 202. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for these analytes may be lower than the reported value.

1,1-Dichloroethane was J-coded in sample 202. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory control sample. The actual concentration for this analyte may be lower than the reported value.

Naphthalene contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: 201 and 202.

2-Butanone and Methylcyclohexane were J-coded in sample 202, while Ethyl Benzene, Styrene, Tetrachloroethene and o-Xylene were UJ-coded, due to poor precision in the laboratory matrix spikes.

Chloroform, Cyclohexane, Ethyl Benzene, Isopropylbenzene, Methylcyclohexane, Naphthalene, Tetrachloroethene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichlorotrifluorethane and m- and/or p-Xylene were J-coded for hits and UJ-coded for non-detects in sample 202, due to low recoveries of these analytes in the matrix spike and/or spike duplicate. Values may be higher than reported. 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Naphthalene were non-detect in the spikes due to system issues involving carryover/contamination.

Chlorobenzene, Isopropylbenzene, 1,1,2,2-Tetrachloroethane, m- and/or p-Xylene were J-coded in sample 202. Although the analytes in question have been positively identified in the sample, the quantitation is an estimate (J-coded) due to low internal standard response. The actual concentration for these analytes may be lower than the reported value.

Sample 201 had all hits J-coded and all non-detects UJ-coded, as matrix interference

Analysis	Comments About Results For This Analysis

caused low recovery of the internal standards and a surrogate. Values reported may be higher.

1 PCBs in Hazardous by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Samples: 1-__ 2-__

Comments:
Dilutions were necessary because of high levels of Aroclor 1242 in samples 1 and 2 for this analysis. This increased the reporting limits by a factor of about 50 for these samples.

2 PCBs in Hazardous by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3240.2H with Acid Cleanup

Samples: 301-__ 302-__ 401-__ 402-__ 403-__ 404-__ 405-__
406-__ 407-__ 408-__ 409-__ 410-__ 411-__

Comments:
Aroclor 1242 was J-coded in samples 302, 406, 408, 409, 410, and 411. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of a surrogate analyte in these samples. The actual concentration for this analyte may be lower than the reported value.

Dilutions were necessary because of high levels of Aroclor 1242 in all samples for this analysis. This increased the reporting limits by a factor of about 5 for these samples.

1 Semi-Volatile Organic Compounds in Hazardous Waste

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.2G (see comments)

Samples: 1-__ 2-__

Comments:
Due to the nature of the samples, the normal low level protocol could not be followed. The analyst determined it was necessary to extract and analyze the samples following the waste dilution protocol (1 gram of sample extracted and taken to a final volume of 10mL). This resulted in higher reporting limits for all samples.

Bis(2-ethylhexyl)phthalate and di-n-octylphthalate were J-coded in sample 5729-1. Although the compounds in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low internal standard response. The actual concentration for this analyte may be lower than the reported value.

Two internal standards in sample 5729-1 had unacceptable response indicating that is was not possible to obtain valid results for benzo(a)anthracene, butyl benzyl phthalate, chrysene, 3,3'-dichlorobenzidine, pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene,

Analysis Comments About Results For This Analysis

benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene. Results of 'N/A' were reported with R-codes for these analytes.

Two internal standards in sample 5729-2 had unacceptable response indicating that is was not possible to obtain valid results for di-n-octylphthalate, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, chrysene, 3,3'-dichlorobenzidine, pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene. Results of 'N/A' were reported with R-codes for these analytes.

2 Semi-Volatile Organic Compounds in Hazardous Waste

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.2G (see comments)

Samples: 301-__ 302-__ 401-__ 402-__ 403-__ 404-__ 405-__
406-__ 407-__ 408-__ 409-__ 410-__ 411-__

Comments:
Due to the nature of the samples, the normal low level protocol could not be followed. The analyst determined it was necessary to extract and analyze the samples following the waste dilution protocol (1 gram of sample extracted and taken to a final volume of 10mL). This resulted in higher reporting limits for all samples.

For samples 5729-402, 5729-403, 5729-404, 5729-405, 5729-406, & 5729-407, pyrene, 3,3'-dichlorobenzidine, benzo(a)anthracene, chrysene, bis(2-Ethylhexyl)phthalate, and butylbenzylphthalate were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to a low internal standard response.

For samples 5729-301 and 5729-401, di-n-octylphthalate, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, chrysene, 3,3'-dichlorobenzidine, pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to a low internal standard response.

Two internal standards in samples 5729-302, 5729-408, 5729-409, 5729-410, & 5729-411 had unacceptable response indicating that is was not possible to obtain valid results for di-n-octylphthalate, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, chrysene, 3,3'-dichlorobenzidine, pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene. Results of 'N/A' were reported with R-codes for these analytes.

Two internal standards in samples 5729-402, 5729-403, 5729-404, 5729-405, 5729-406, & 5729-407 had unacceptable response indicating that is was not possible to obtain valid results for di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene.

Analysis	Comments About Results For This Analysis

Results of 'N/A' were reported with R-codes for these analytes.

1 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Samples: 1-__ 2-__

Comments:
The calculated RPD of 80% between sample 5729-1 and 5729-1LD exceeded the control limit of 35%. TPH DRO was J-coded in sample 5729-1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory duplicate sample.

2 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Samples: 301-__ 302-__

Comments:

1 TPH Volatiles in Waste by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Iowa UHL Method OA-1 (see comments)

Samples: 1-__ 2-__

Comments:

2 TPH Volatiles in Waste by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Iowa UHL Method OA-1 (see comments)

Samples: 301-__ 302-__

Comments:

1 VOCs in Solid Hazardous Matrices by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.17D (see comments)

Samples: 1-__ 2-__

Comments:

Analysis Comments About Results For This Analysis

2 VOCs in Solid Hazardous Matrices by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.17D (see comments)

Samples: 301-__ 302-__ 401-__ 402-__ 403-__ 404-__ 405-__
406-__ 407-__ 408-__ 409-__ 410-__ 411-__

Comments:

1 Pesticides in Water by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3240.2H

Samples: 101-__ 102-__

Comments:
Aroclor 1242 was J-coded in sample 102. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate.

Dilutions were necessary because of high levels of Aroclor 1242 in samples 101 and 102 for this analysis. This increased the reporting limits by a factor of 200 for these samples.

1 Semi-Volatile Organic Compounds in Water

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.2G (see comments)

Samples: 101-__ 102-__

Comments:
A dilution was necessary in order to obtain valid results due to matrix interferences for sample 5729-101. This increased the reporting limits by a factor of 10 for this sample.

For 5729-101, di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, & benzo(g,h,i)perylene were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to a low internal standard response.

1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Samples: 101-__ 102-__

Comments:

Analysis	Comments About Results For This Analysis

1 TPH Volatiles in water by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.19B

Samples: 101-__ 102-__ 105-FB

Comments:

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.13E

Samples: 101-__ 102-__ 106-FB

Comments:
Sample 102 required dilutions for Chloromethane, Acetone, 2-Butanone and Chloroform.

Acetone was J-coded in samples 101 and 102 and UJ-coded in sample 106FB due to the initial instrument calibration curve not meeting linearity specifications and the continuing calibration check not meeting accuracy specifications. The actual value or reporting limit may be higher than the reported value.

1,2,4-Trichlorobenzene, Naphthalene and 1,2,3-Trichlorobenzene were UJ-coded in samples 101, 102 and 106FB. 1,2-Dibromo-3-Chloropropane was UJ-coded in sample 102. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications and low recovery in the laboratory control sample or matrix spikes. The actual reporting limit for these analytes may be higher than the reported value.

1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1-Dichloroethene and Styrene were UJ-coded in sample 101. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value. 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene and Naphthalene were non-detect in the spikes due to system issues involving carryover/contamination, as happened in the CCal/LCS. Styrene just disappeared, most likely due to matrix interference.

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
1 PCBs in Hazardous by GC/EC					
Aroclor 1016	mg/kg	99 U	98 U		
Aroclor 1221	mg/kg	99 U	98 U		
Aroclor 1232	mg/kg	99 U	98 U		
Aroclor 1242	mg/kg	490	502		
Aroclor 1248	mg/kg	99 U	98 U		
Aroclor 1254	mg/kg	50 U	49 U		
Aroclor 1260	mg/kg	40 U	39 U		
1 Semi-Volatile Organic Compounds in Hazardous Waste					
Acenaphthene	mg/kg	100 U	100 U		
Acenaphthylene	mg/kg	100 U	100 U		
Anthracene	mg/kg	100 U	100 U		
Benzo(a)anthracene	mg/kg	N/A R	N/A R		
Benzo(a)pyrene	mg/kg	N/A R	N/A R		
Benzo(b)fluoranthene	mg/kg	N/A R	N/A R		
Benzo(g,h,i)perylene	mg/kg	N/A R	N/A R		
Benzo(k)fluoranthene	mg/kg	N/A R	N/A R		
Benzoic acid	mg/kg	100 U	100 U		
Benzyl alcohol	mg/kg	100 U	100 U		
bis(2-Chloroethoxy)methane	mg/kg	100 U	100 U		
bis(2-Chloroisopropyl)ether	mg/kg	100 U	100 U		
bis(2-Ethylhexyl)phthalate	mg/kg	136 J	N/A R		
4-Bromophenyl-phenylether	mg/kg	100 U	100 U		
Butylbenzylphthalate	mg/kg	N/A R	N/A R		
4-Chloro-3-methylphenol	mg/kg	100 U	100 U		
4-Chloroaniline	mg/kg	100 U	100 U		
2-Chloronaphthalene	mg/kg	100 U	100 U		
2-Chlorophenol	mg/kg	100 U	100 U		
4-Chlorophenyl-phenylether	mg/kg	100 U	100 U		
Chrysene	mg/kg	N/A R	N/A R		
Di-n-butylphthalate	mg/kg	100 U	100 U		
Di-n-octylphthalate	mg/kg	125 J	N/A R		
Dibenz(a,h)anthracene	mg/kg	N/A R	N/A R		
Dibenzofuran	mg/kg	100 U	100 U		
1,2-Dichlorobenzene	mg/kg	100 U	100 U		
1,3-Dichlorobenzene	mg/kg	100 U	100 U		
1,4-Dichlorobenzene	mg/kg	100 U	100 U		
3,3'-Dichlorobenzidine	mg/kg	N/A R	N/A R		
2,4-Dichlorophenol	mg/kg	100 U	100 U		
Diethylphthalate	mg/kg	100 U	100 U		
2,4-Dimethylphenol	mg/kg	100 U	100 U		
Dimethylphthalate	mg/kg	100 U	100 U		
4,6-Dinitro-2-methylphenol	mg/kg	100 U	100 U		
2,4-Dinitrophenol	mg/kg	100 U	100 U		
2,4-Dinitrotoluene	mg/kg	100 U	100 U		
2,6-Dinitrotoluene	mg/kg	100 U	100 U		

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
Fluoranthene	mg/kg	100 U	100 U		
Fluorene	mg/kg	100 U	100 U		
Hexachlorobenzene	mg/kg	100 U	100 U		
Hexachlorobutadiene	mg/kg	100 U	100 U		
Hexachlorocyclopentadiene	mg/kg	100 U	100 U		
Hexachloroethane	mg/kg	100 U	100 U		
Indeno(1,2,3-cd)pyrene	mg/kg	N/A R	N/A R		
Isophorone	mg/kg	100 U	100 U		
2-Methylnaphthalene	mg/kg	100 U	100 U		
2-Methylphenol	mg/kg	100 U	100 U		
4-Methylphenol	mg/kg	100 U	100 U		
Naphthalene	mg/kg	100 U	100 U		
2-Nitroaniline	mg/kg	100 U	100 U		
3-Nitroaniline	mg/kg	100 U	100 U		
4-Nitroaniline	mg/kg	100 U	100 U		
Nitrobenzene	mg/kg	100 U	100 U		
2-Nitrophenol	mg/kg	100 U	100 U		
4-Nitrophenol	mg/kg	100 U	100 U		
N-nitroso-di-n-propylamine	mg/kg	100 U	100 U		
N-nitrosodiphenylamine	mg/kg	100 U	100 U		
Pentachlorophenol	mg/kg	100 U	100 U		
Phenanthrene	mg/kg	100 U	100 U		
Phenol	mg/kg	100 U	100 U		
Pyrene	mg/kg	N/A R	N/A R		
1,2,4-Trichlorobenzene	mg/kg	100 U	100 U		
2,4,5-Trichlorophenol	mg/kg	100 U	100 U		
2,4,6-Trichlorophenol	mg/kg	100 U	100 U		
1 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID					
TPH DRO	mg/kg	90300 J	28700		
1 TPH Volatiles in Waste by GC/MS					
Purgeable TPH	mg/kg	2 U	4.43		
1 VOCs in Solid Hazardous Matrices by GC/MS					
Acetone	mg/kg	5 U	5 U		
Benzene	mg/kg	0.5 U	0.5 U		
Bromodichloromethane	mg/kg	0.5 U	0.5 U		
Bromoform	mg/kg	0.5 U	0.5 U		
Bromomethane	mg/kg	1 U	1 U		
2-Butanone	mg/kg	5 U	5 U		
Carbon Disulfide	mg/kg	0.5 U	0.5 U		
Carbon Tetrachloride	mg/kg	0.5 U	0.5 U		
Chlorobenzene	mg/kg	0.5 U	0.5 U		
Chloroethane	mg/kg	1 U	1 U		
Chloroform	mg/kg	0.5 U	0.65		
Chloromethane	mg/kg	1 U	5.93		
1,2-Dibromo-3-Chloropropane	mg/kg	1 U	1 U		

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
Dibromochloromethane	mg/kg	0.5 U	0.5 U		
1,2-Dibromoethane	mg/kg	0.5 U	0.5 U		
1,2-Dichlorobenzene	mg/kg	0.5 U	0.5 U		
1,3-Dichlorobenzene	mg/kg	0.5 U	0.5 U		
1,4-Dichlorobenzene	mg/kg	0.5 U	0.5 U		
1,1-Dichloroethane	mg/kg	0.5 U	0.5 U		
1,2-Dichloroethane	mg/kg	0.5 U	0.5 U		
1,1-Dichloroethene	mg/kg	0.5 U	0.5 U		
cis-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U		
trans-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U		
1,2-Dichloropropane	mg/kg	0.5 U	0.5 U		
cis-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U		
trans-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U		
Ethyl Benzene	mg/kg	0.5 U	0.5 U		
2-Hexanone	mg/kg	2 U	2 U		
Isopropylbenzene	mg/kg	0.5 U	0.5 U		
Methylene Chloride	mg/kg	0.5 U	0.5 U		
4-Methyl-2-Pentanone	mg/kg	2 U	2 U		
Naphthalene	mg/kg	0.5 U	0.5 U		
Styrene	mg/kg	0.5 U	0.5 U		
1,1,2,2-Tetrachloroethane	mg/kg	0.5 U	0.55		
Tetrachloroethene	mg/kg	0.5 U	0.5 U		
Toluene	mg/kg	0.5 U	0.5 U		
1,2,3-Trichlorobenzene	mg/kg	0.5 U	0.5 U		
1,2,4-Trichlorobenzene	mg/kg	0.5 U	0.5 U		
1,1,1-Trichloroethane	mg/kg	0.5 U	0.5 U		
1,1,2-Trichloroethane	mg/kg	0.5 U	0.5 U		
Trichloroethene	mg/kg	0.5 U	0.5 U		
Trichlorofluoromethane	mg/kg	1 U	1 U		
Vinyl Chloride	mg/kg	1 U	1 U		
m and/or p-Xylene	mg/kg	0.5 U	0.5 U		
o-Xylene	mg/kg	0.5 U	0.5 U		
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L			200 U	200 U
Aroclor 1221	ug/L			200 U	200 U
Aroclor 1232	ug/L			200 U	200 U
Aroclor 1242	ug/L			1800	610 J
Aroclor 1248	ug/L			160 U	160 U
Aroclor 1254	ug/L			120 U	120 U
Aroclor 1260	ug/L			80 U	80 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L			100 U	10 U
Acenaphthylene	ug/L			100 U	10 U
Anthracene	ug/L			100 U	10 U
Benzo(a)anthracene	ug/L			100 U	10 U

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
Benzo(a)pyrene	ug/L			100 UJ	10 U
Benzo(b)fluoranthene	ug/L			100 UJ	10 U
Benzo(g,h,i)perylene	ug/L			100 UJ	10 U
Benzo(k)fluoranthene	ug/L			100 UJ	10 U
Benzoic acid	ug/L			100 U	100 U
Benzyl alcohol	ug/L			100 U	10 U
bis(2-Chloroethoxy)methane	ug/L			100 U	10 U
bis(2-Chloroisopropyl)ether	ug/L			100 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L			100 U	21
4-Bromophenyl-phenylether	ug/L			100 U	10 U
Butylbenzylphthalate	ug/L			100 U	10 U
4-Chloro-3-methylphenol	ug/L			100 U	10 U
4-Chloroaniline	ug/L			100 U	10 U
2-Chloronaphthalene	ug/L			100 U	10 U
2-Chlorophenol	ug/L			100 U	10 U
4-Chlorophenyl-phenylether	ug/L			100 U	10 U
Chrysene	ug/L			100 U	10 U
Di-n-butylphthalate	ug/L			100 U	10 U
Di-n-octylphthalate	ug/L			100 UJ	17.2
Dibenz(a,h)anthracene	ug/L			100 UJ	10 U
Dibenzofuran	ug/L			100 U	10 U
1,2-Dichlorobenzene	ug/L			100 U	10 U
1,3-Dichlorobenzene	ug/L			100 U	10 U
1,4-Dichlorobenzene	ug/L			100 U	10 U
3,3'-Dichlorobenzidine	ug/L			100 U	10 U
2,4-Dichlorophenol	ug/L			100 U	10 U
Diethylphthalate	ug/L			100 U	10 U
2,4-Dimethylphenol	ug/L			100 U	10 U
Dimethylphthalate	ug/L			100 U	10 U
4,6-Dinitro-2-methylphenol	ug/L			100 U	10 U
2,4-Dinitrophenol	ug/L			100 U	10 U
2,4-Dinitrotoluene	ug/L			100 U	10 U
2,6-Dinitrotoluene	ug/L			100 U	10 U
Fluoranthene	ug/L			100 U	10 U
Fluorene	ug/L			100 U	10 U
Hexachlorobenzene	ug/L			100 U	10 U
Hexachlorobutadiene	ug/L			100 U	10 U
Hexachlorocyclopentadiene	ug/L			100 U	10 U
Hexachloroethane	ug/L			100 U	10 U
Indeno(1,2,3-cd)pyrene	ug/L			100 UJ	10 U
Isophorone	ug/L			100 U	10 U
2-Methylnaphthalene	ug/L			100 U	10 U
2-Methylphenol	ug/L			100 U	10 U
4-Methylphenol	ug/L			100 U	10 U
Naphthalene	ug/L			100 U	10 U

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
2-Nitroaniline	ug/L			100 U	10 U
3-Nitroaniline	ug/L			100 U	10 U
4-Nitroaniline	ug/L			100 U	10 U
Nitrobenzene	ug/L			100 U	10 U
2-Nitrophenol	ug/L			100 U	10 U
4-Nitrophenol	ug/L			100 U	10 U
N-nitroso-di-n-propylamine	ug/L			100 U	10 U
N-nitrosodiphenylamine	ug/L			100 U	10 U
Pentachlorophenol	ug/L			100 U	10 U
Phenanthrene	ug/L			100 U	10 U
Phenol	ug/L			100 U	10 U
Pyrene	ug/L			100 U	10 U
1,2,4-Trichlorobenzene	ug/L			100 U	10 U
2,4,5-Trichlorophenol	ug/L			100 U	10 U
2,4,6-Trichlorophenol	ug/L			100 U	10 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L			25.6	14.9
1 TPH Volatiles in water by GC/MS					
Purgeable TPH	ug/L			50 U	50 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L			30 J	730 J
Benzene	ug/L			1.0 U	1.4
Bromodichloromethane	ug/L			1.0 U	1.0 U
Bromoform	ug/L			1.0 U	1.0 U
Bromomethane	ug/L			1.0 U	3.7
2-Butanone	ug/L			5.0 U	75
Carbon Disulfide	ug/L			2.0	6.6
Carbon Tetrachloride	ug/L			1.0 U	1.0 U
Chlorobenzene	ug/L			5.8	1.5
Chloroethane	ug/L			1.0 U	38
Chloroform	ug/L			1.0 U	42
Chloromethane	ug/L			1.0 U	5700
Cyclohexane	ug/L			1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L			5.0 U	5.0 UJ
Dibromochloromethane	ug/L			1.0 U	1.0 U
1,2-Dibromoethane	ug/L			1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L			1.0 UJ	1.0 U
1,3-Dichlorobenzene	ug/L			1.0 UJ	1.0 U
1,4-Dichlorobenzene	ug/L			1.0 UJ	1.0 U
Dichlorodifluoromethane	ug/L			1.0 U	1.0 U
1,1-Dichloroethane	ug/L			1.0 U	5.1
1,2-Dichloroethane	ug/L			1.0 U	2.9
1,1-Dichloroethene	ug/L			1.0 UJ	1.0 U
cis-1,2-Dichloroethene	ug/L			1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L			1.0 U	1.0 U

Analysis/ Analyte	Units	1-__	2-__	101-__	102-__
1,2-Dichloropropane	ug/L			1.0 U	2.2
cis-1,3-Dichloropropene	ug/L			1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L			1.0 U	1.0 U
Ethyl Benzene	ug/L			1.0 U	1.0 U
2-Hexanone	ug/L			5.0 U	5.0 U
Isopropylbenzene	ug/L			3.0	1.0 U
Methyl Acetate	ug/L			5.0 U	13
Methyl tert-butyl ether	ug/L			1.0 U	1.0 U
Methylcyclohexane	ug/L			1.0 U	1.0 U
Methylene Chloride	ug/L			1.0 U	25
4-Methyl-2-Pentanone	ug/L			5.0 U	5.0 U
Naphthalene	ug/L			2.0 UJ	2.0 UJ
Styrene	ug/L			1.0 UJ	1.0 U
1,1,2,2-Tetrachloroethane	ug/L			1.0 U	1.0 U
Tetrachloroethene	ug/L			1.0 U	1.0 U
Toluene	ug/L			1.0	1.0 U
1,2,3-Trichlorobenzene	ug/L			1.0 UJ	1.0 UJ
1,2,4-Trichlorobenzene	ug/L			1.0 UJ	1.0 UJ
1,1,1-Trichloroethane	ug/L			1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L			1.0 U	1.0 U
Trichloroethene	ug/L			1.0 U	1.0 U
Trichlorofluoromethane	ug/L			1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L			1.0 U	1.0 U
Vinyl Chloride	ug/L			1.0 U	3.3
m and/or p-Xylene	ug/L			2.0 U	2.0 U
o-Xylene	ug/L			1.0 U	1.0 U

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Analysis/ Analyte	Units	105-FB	106-FB	201-__	202-__
1 PCBs in Soil by GC/EC					
Aroclor 1016	ug/kg			190000 U	73000 U
Aroclor 1221	ug/kg			190000 U	73000 U
Aroclor 1232	ug/kg			190000 U	73000 U
Aroclor 1242	ug/kg			2100000	240000
Aroclor 1248	ug/kg			190000 U	73000 U
Aroclor 1254	ug/kg			93000 U	37000 U
Aroclor 1260	ug/kg			93000 U	37000 U
1 Percent Solid					
Solids, percent	%			41.5	54.5
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg			63200 U	65700 U
Acenaphthylene	ug/kg			63200 U	65700 U
Anthracene	ug/kg			63200 U	65700 U
Benzo(a)anthracene	ug/kg			63200 U	65700 U
Benzo(a)pyrene	ug/kg			63200 U	65700 UJ
Benzo(b)fluoranthene	ug/kg			63200 U	65700 UJ
Benzo(g,h,i)perylene	ug/kg			63200 U	65700 UJ
Benzo(k)fluoranthene	ug/kg			63200 U	65700 UJ
Benzoic acid	ug/kg			63200 U	65700 U
Benzyl alcohol	ug/kg			63200 U	65700 U
bis(2-Chloroethoxy)methane	ug/kg			63200 U	65700 U
bis(2-Chloroisopropyl)ether	ug/kg			63200 U	65700 U
bis(2-Ethylhexyl)phthalate	ug/kg			63200 U	65700 U
4-Bromophenyl-phenylether	ug/kg			63200 U	65700 U
Butylbenzylphthalate	ug/kg			63200 U	65700 U
4-Chloro-3-methylphenol	ug/kg			63200 U	65700 U
4-Chloroaniline	ug/kg			63200 U	65700 U
2-Chloronaphthalene	ug/kg			63200 U	65700 U
2-Chlorophenol	ug/kg			63200 U	65700 U
4-Chlorophenyl-phenylether	ug/kg			63200 U	65700 U
Chrysene	ug/kg			63200 U	65700 U
Di-n-butylphthalate	ug/kg			63200 U	65700 U
Di-n-octylphthalate	ug/kg			63200 U	65700 UJ
Dibenz(a,h)anthracene	ug/kg			63200 U	65700 UJ
Dibenzofuran	ug/kg			63200 U	65700 U
1,2-Dichlorobenzene	ug/kg			63200 U	65700 U
1,3-Dichlorobenzene	ug/kg			63200 U	65700 U
1,4-Dichlorobenzene	ug/kg			63200 U	65700 U
3,3'-Dichlorobenzidine	ug/kg			63200 U	65700 U
2,4-Dichlorophenol	ug/kg			63200 U	65700 U
Diethylphthalate	ug/kg			63200 U	65700 U
2,4-Dimethylphenol	ug/kg			63200 U	65700 U
Dimethylphthalate	ug/kg			63200 U	65700 U
4,6-Dinitro-2-methylphenol	ug/kg			63200 U	65700 U
2,4-Dinitrophenol	ug/kg			63200 U	65700 U

Analysis/ Analyte	Units	105-FB	106-FB	201-__	202-__
2,4-Dinitrotoluene	ug/kg			63200 U	65700 U
2,6-Dinitrotoluene	ug/kg			63200 U	65700 U
Fluoranthene	ug/kg			63200 U	65700 U
Fluorene	ug/kg			63200 U	65700 U
Hexachlorobenzene	ug/kg			63200 U	65700 U
Hexachlorobutadiene	ug/kg			63200 U	65700 U
Hexachlorocyclopentadiene	ug/kg			63200 U	65700 U
Hexachloroethane	ug/kg			63200 U	65700 U
Indeno(1,2,3-cd)pyrene	ug/kg			63200 U	65700 UJ
Isophorone	ug/kg			63200 U	65700 U
2-Methylnaphthalene	ug/kg			63200 U	65700 U
2-Methylphenol	ug/kg			63200 U	65700 U
4-Methylphenol	ug/kg			63200 U	65700 U
Naphthalene	ug/kg			63200 U	65700 U
2-Nitroaniline	ug/kg			63200 U	65700 U
3-Nitroaniline	ug/kg			63200 U	65700 U
4-Nitroaniline	ug/kg			63200 U	65700 U
Nitrobenzene	ug/kg			63200 U	65700 U
2-Nitrophenol	ug/kg			63200 U	65700 U
4-Nitrophenol	ug/kg			63200 U	65700 U
N-nitroso-di-n-propylamine	ug/kg			63200 U	65700 U
N-nitrosodiphenylamine	ug/kg			63200 U	65700 U
Pentachlorophenol	ug/kg			63200 U	65700 U
Phenanthrene	ug/kg			63200 U	65700 U
Phenol	ug/kg			63200 U	65700 U
Pyrene	ug/kg			63200 U	65700 U
1,2,4-Trichlorobenzene	ug/kg			63200 U	65700 U
2,4,5-Trichlorophenol	ug/kg			63200 U	65700 U
2,4,6-Trichlorophenol	ug/kg			63200 U	65700 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg			9670	13000
1 TPH Volatiles in Soil by GC/MS					
Purgeable TPH	ug/kg			50 UJ	900 J
1 VOCs in Solid Matrices by GC/MS					
Acetone	ug/kg			710 J	290
Benzene	ug/kg			9.6 UJ	8.1 U
Bromodichloromethane	ug/kg			9.6 UJ	8.1 U
Bromoform	ug/kg			19 UJ	16 U
Bromomethane	ug/kg			9.6 UJ	8.1 U
2-Butanone	ug/kg			170 J	84 J
Carbon Disulfide	ug/kg			23 J	13
Carbon Tetrachloride	ug/kg			9.6 UJ	8.1 U
Chlorobenzene	ug/kg			970 J	26 J
Chloroethane	ug/kg			9.6 UJ	53
Chloroform	ug/kg			9.6 UJ	110 J

Analysis/ Analyte	Units	105-FB	106-FB	201-__	202-__
Chloromethane	ug/kg			13 J	4600 J
Cyclohexane	ug/kg			48 J	8.1 UJ
1,2-Dibromo-3-Chloropropane	ug/kg			19 UJ	16 U
Dibromochloromethane	ug/kg			19 UJ	16 U
1,2-Dibromoethane	ug/kg			9.6 UJ	8.1 U
1,2-Dichlorobenzene	ug/kg			43 J	8.1 U
1,3-Dichlorobenzene	ug/kg			24 J	8.1 U
1,4-Dichlorobenzene	ug/kg			120 J	8.1 U
Dichlorodifluoromethane	ug/kg			19 UJ	16 UJ
1,1-Dichloroethane	ug/kg			9.6 UJ	10 J
1,2-Dichloroethane	ug/kg			9.6 UJ	8.1 U
1,1-Dichloroethene	ug/kg			9.6 UJ	8.1 U
cis-1,2-Dichloroethene	ug/kg			9.6 UJ	8.1 U
trans-1,2-Dichloroethene	ug/kg			9.6 UJ	8.1 U
1,2-Dichloropropane	ug/kg			9.6 UJ	8.1 U
cis-1,3-Dichloropropene	ug/kg			9.6 UJ	8.1 U
trans-1,3-Dichloropropene	ug/kg			9.6 UJ	8.1 U
Ethyl Benzene	ug/kg			9.6 UJ	8.1 UJ
2-Hexanone	ug/kg			19 UJ	16 U
Isopropylbenzene	ug/kg			760 J	59 J
Methyl Acetate	ug/kg			19 UJ	16 U
Methyl tert-butyl ether	ug/kg			9.6 UJ	8.1 U
Methylcyclohexane	ug/kg			690 J	67 J
Methylene Chloride	ug/kg			9.6 UJ	37 J
4-Methyl-2-Pentanone	ug/kg			9.6 UJ	8.1 U
Naphthalene	ug/kg			210 UJ	38 UJ
Styrene	ug/kg			9.6 UJ	8.1 UJ
1,1,2,2-Tetrachloroethane	ug/kg			1200 J	120 J
Tetrachloroethene	ug/kg			9.6 UJ	8.1 UJ
Toluene	ug/kg			9.6 UJ	8.1 U
1,2,3-Trichlorobenzene	ug/kg			9.6 UJ	8.1 UJ
1,2,4-Trichlorobenzene	ug/kg			9.6 UJ	8.1 UJ
1,1,1-Trichloroethane	ug/kg			9.6 UJ	8.1 UJ
1,1,2-Trichloroethane	ug/kg			9.6 UJ	8.1 U
Trichloroethene	ug/kg			9.6 UJ	8.1 U
Trichlorofluoromethane	ug/kg			9.6 UJ	8.1 U
1,1,2-Trichlorotrifluoroethane	ug/kg			9.6 UJ	8.1 UJ
Vinyl Chloride	ug/kg			19 UJ	16 U
m and/or p-Xylene	ug/kg			170 J	20 J
o-Xylene	ug/kg			75 J	8.1 UJ
1 TPH Volatiles in water by GC/MS					
Purgeable TPH	ug/L	50 U			
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L		5.0 UJ		
Benzene	ug/L		1.0 U		

Analysis/ Analyte	Units	105-FB	106-FB	201-__	202-__
Bromodichloromethane	ug/L		1.0 U		
Bromoform	ug/L		1.0 U		
Bromomethane	ug/L		1.0 U		
2-Butanone	ug/L		5.0 U		
Carbon Disulfide	ug/L		1.0 U		
Carbon Tetrachloride	ug/L		1.0 U		
Chlorobenzene	ug/L		1.0 U		
Chloroethane	ug/L		1.0 U		
Chloroform	ug/L		1.0 U		
Chloromethane	ug/L		1.0 U		
Cyclohexane	ug/L		1.0 U		
1,2-Dibromo-3-Chloropropane	ug/L		5.0 U		
Dibromochloromethane	ug/L		1.0 U		
1,2-Dibromoethane	ug/L		1.0 U		
1,2-Dichlorobenzene	ug/L		1.0 U		
1,3-Dichlorobenzene	ug/L		1.0 U		
1,4-Dichlorobenzene	ug/L		1.0 U		
Dichlorodifluoromethane	ug/L		1.0 U		
1,1-Dichloroethane	ug/L		1.0 U		
1,2-Dichloroethane	ug/L		1.0 U		
1,1-Dichloroethene	ug/L		1.0 U		
cis-1,2-Dichloroethene	ug/L		1.0 U		
trans-1,2-Dichloroethene	ug/L		1.0 U		
1,2-Dichloropropane	ug/L		1.0 U		
cis-1,3-Dichloropropene	ug/L		1.0 U		
trans-1,3-Dichloropropene	ug/L		1.0 U		
Ethyl Benzene	ug/L		1.0 U		
2-Hexanone	ug/L		5.0 U		
Isopropylbenzene	ug/L		1.0 U		
Methyl Acetate	ug/L		5.0 U		
Methyl tert-butyl ether	ug/L		1.0 U		
Methylcyclohexane	ug/L		1.0 U		
Methylene Chloride	ug/L		1.0 U		
4-Methyl-2-Pentanone	ug/L		5.0 U		
Naphthalene	ug/L		2.0 UJ		
Styrene	ug/L		1.0 U		
1,1,2,2-Tetrachloroethane	ug/L		1.0 U		
Tetrachloroethene	ug/L		1.0 U		
Toluene	ug/L		1.0 U		
1,2,3-Trichlorobenzene	ug/L		1.0 UJ		
1,2,4-Trichlorobenzene	ug/L		1.0 UJ		
1,1,1-Trichloroethane	ug/L		1.0 U		
1,1,2-Trichloroethane	ug/L		1.0 U		
Trichloroethene	ug/L		1.0 U		
Trichlorofluoromethane	ug/L		1.0 U		

Analysis/ Analyte	Units	105-FB	106-FB	201-__	202-__
1,1,2-Trichlorotrifluoroethane	ug/L		1.0 U		
Vinyl Chloride	ug/L		1.0 U		
m and/or p-Xylene	ug/L		2.0 U		
o-Xylene	ug/L		1.0 U		

Analysis/ Analyte	Units	301-__	302-__	401-__	402-__
2 PCBs in Hazardous by GC/EC					
Aroclor 1016	mg/kg	9.9 U	9.7 U	9.8 U	9.9 U
Aroclor 1221	mg/kg	9.9 U	9.7 U	9.8 U	9.9 U
Aroclor 1232	mg/kg	9.9 U	9.7 U	9.8 U	9.9 U
Aroclor 1242	mg/kg	15	39 J	35	52
Aroclor 1248	mg/kg	9.9 U	9.7 U	9.8 U	9.9 U
Aroclor 1254	mg/kg	5.0 U	4.8 U	4.9 U	4.9 U
Aroclor 1260	mg/kg	4.0 U	3.9 U	3.9 U	3.9 U
2 Semi-Volatile Organic Compounds in Hazardous Waste					
Acenaphthene	mg/kg	100 U	100 U	100 U	100 U
Acenaphthylene	mg/kg	100 U	100 U	100 U	100 U
Anthracene	mg/kg	100 U	100 U	100 U	100 U
Benzo(a)anthracene	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
Benzo(a)pyrene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Benzo(b)fluoranthene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Benzo(g,h,i)perylene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Benzo(k)fluoranthene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Benzoic acid	mg/kg	100 U	100 U	100 U	100 U
Benzyl alcohol	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroethoxy)methane	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroisopropyl)ether	mg/kg	100 U	100 U	100 U	100 U
bis(2-Ethylhexyl)phthalate	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
4-Bromophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Butylbenzylphthalate	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
4-Chloro-3-methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Chloroaniline	mg/kg	100 U	100 U	100 U	100 U
2-Chloronaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Chlorophenol	mg/kg	100 U	100 U	100 U	100 U
4-Chlorophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Chrysene	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
Di-n-butylphthalate	mg/kg	100 U	100 U	100 U	100 U
Di-n-octylphthalate	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Dibenz(a,h)anthracene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Dibenzofuran	mg/kg	100 U	100 U	100 U	100 U
1,2-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,3-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,4-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
3,3'-Dichlorobenzidine	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
2,4-Dichlorophenol	mg/kg	100 U	100 U	100 U	100 U
Diethylphthalate	mg/kg	100 U	100 U	100 U	100 U
2,4-Dimethylphenol	mg/kg	100 U	100 U	100 U	100 U
Dimethylphthalate	mg/kg	100 U	100 U	100 U	100 U
4,6-Dinitro-2-methylphenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrophenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U
2,6-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U

Analysis/ Analyte	Units	301-__	302-__	401-__	402-__
Fluoranthene	mg/kg	100 U	100 U	100 U	100 U
Fluorene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobenzene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobutadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorocyclopentadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachloroethane	mg/kg	100 U	100 U	100 U	100 U
Indeno(1,2,3-cd)pyrene	mg/kg	100 UJ	N/A R	100 UJ	N/A R
Isophorone	mg/kg	100 U	100 U	100 U	100 U
2-Methylnaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
Naphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
3-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
4-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
Nitrobenzene	mg/kg	100 U	100 U	100 U	100 U
2-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
4-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
N-nitroso-di-n-propylamine	mg/kg	100 U	100 U	100 U	100 U
N-nitrosodiphenylamine	mg/kg	100 U	100 U	100 U	100 U
Pentachlorophenol	mg/kg	100 U	100 U	100 U	100 U
Phenanthrene	mg/kg	100 U	100 U	100 U	100 U
Phenol	mg/kg	100 U	100 U	100 U	100 U
Pyrene	mg/kg	100 UJ	N/A R	100 UJ	100 UJ
1,2,4-Trichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
2,4,5-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2 Semi-Volatile TPH (DRO & ORO) in Waste by GC/FID					
TPH DRO	mg/kg	999 U	33600		
2 TPH Volatiles in Waste by GC/MS					
Purgeable TPH	mg/kg	2 U	2 U		
2 VOCs in Solid Hazardous Matrices by GC/MS					
Acetone	mg/kg	5 U	5 U	5 U	5 U
Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	mg/kg	1 U	1 U	1 U	1 U
2-Butanone	mg/kg	5 U	5 U	5 U	5 U
Carbon Disulfide	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	mg/kg	1 U	1 U	1 U	1 U
Chloroform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	mg/kg	1 U	2.71	1 U	1 U
1,2-Dibromo-3-Chloropropane	mg/kg	1 U	1 U	1 U	1 U

Analysis/ Analyte	Units	301-__	302-__	401-__	402-__
Dibromochloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	mg/kg	2 U	2 U	2 U	2 U
Isopropylbenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	mg/kg	2 U	2 U	2 U	2 U
Naphthalene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	mg/kg	1 U	1 U	1 U	1 U
Vinyl Chloride	mg/kg	1 U	1 U	1 U	1 U
m and/or p-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U

Analysis/ Analyte	Units	403-__	404-__	405-__	406-__
2 PCBs in Hazardous by GC/EC					
Aroclor 1016	mg/kg	9.8 U	9.9 U	10.0 U	9.9 U
Aroclor 1221	mg/kg	9.8 U	9.9 U	10.0 U	9.9 U
Aroclor 1232	mg/kg	9.8 U	9.9 U	10.0 U	9.9 U
Aroclor 1242	mg/kg	34	74	80	63 J
Aroclor 1248	mg/kg	9.8 U	9.9 U	10.0 U	9.9 U
Aroclor 1254	mg/kg	4.9 U	4.9 U	5.0 U	4.9 U
Aroclor 1260	mg/kg	3.9 U	3.9 U	4.0 U	3.9 U
2 Semi-Volatile Organic Compounds in Hazardous Waste					
Acenaphthene	mg/kg	100 U	100 U	100 U	100 U
Acenaphthylene	mg/kg	100 U	100 U	100 U	100 U
Anthracene	mg/kg	100 U	100 U	100 U	100 U
Benzo(a)anthracene	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
Benzo(a)pyrene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(b)fluoranthene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(g,h,i)perylene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(k)fluoranthene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzoic acid	mg/kg	100 U	100 U	100 U	100 U
Benzyl alcohol	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroethoxy)methane	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroisopropyl)ether	mg/kg	100 U	100 U	100 U	100 U
bis(2-Ethylhexyl)phthalate	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
4-Bromophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Butylbenzylphthalate	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
4-Chloro-3-methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Chloroaniline	mg/kg	100 U	100 U	100 U	100 U
2-Chloronaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Chlorophenol	mg/kg	100 U	100 U	100 U	100 U
4-Chlorophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Chrysene	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
Di-n-butylphthalate	mg/kg	100 U	100 U	100 U	100 U
Di-n-octylphthalate	mg/kg	N/A R	N/A R	N/A R	N/A R
Dibenz(a,h)anthracene	mg/kg	N/A R	N/A R	N/A R	N/A R
Dibenzofuran	mg/kg	100 U	100 U	100 U	100 U
1,2-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,3-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,4-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
3,3'-Dichlorobenzidine	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
2,4-Dichlorophenol	mg/kg	100 U	100 U	100 U	100 U
Diethylphthalate	mg/kg	100 U	100 U	100 U	100 U
2,4-Dimethylphenol	mg/kg	100 U	100 U	100 U	100 U
Dimethylphthalate	mg/kg	100 U	100 U	100 U	100 U
4,6-Dinitro-2-methylphenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrophenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U
2,6-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U

Analysis/ Analyte	Units	403-__	404-__	405-__	406-__
Fluoranthene	mg/kg	100 U	100 U	100 U	100 U
Fluorene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobenzene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobutadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorocyclopentadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachloroethane	mg/kg	100 U	100 U	100 U	100 U
Indeno(1,2,3-cd)pyrene	mg/kg	N/A R	N/A R	N/A R	N/A R
Isophorone	mg/kg	100 U	100 U	100 U	100 U
2-Methylnaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
Naphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
3-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
4-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
Nitrobenzene	mg/kg	100 U	100 U	100 U	100 U
2-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
4-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
N-nitroso-di-n-propylamine	mg/kg	100 U	100 U	100 U	100 U
N-nitrosodiphenylamine	mg/kg	100 U	100 U	100 U	100 U
Pentachlorophenol	mg/kg	100 U	100 U	100 U	100 U
Phenanthrene	mg/kg	100 U	100 U	100 U	100 U
Phenol	mg/kg	100 U	100 U	100 U	100 U
Pyrene	mg/kg	100 UJ	100 UJ	100 UJ	100 UJ
1,2,4-Trichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
2,4,5-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2 VOCs in Solid Hazardous Matrices by GC/MS					
Acetone	mg/kg	5 U	5 U	5 U	5 U
Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	mg/kg	1 U	1 U	1 U	1 U
2-Butanone	mg/kg	5 U	5 U	5 U	5 U
Carbon Disulfide	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	mg/kg	1 U	1 U	1 U	1 U
Chloroform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	mg/kg	1 U	1.13	1.13	2.24
1,2-Dibromo-3-Chloropropane	mg/kg	1 U	1 U	1 U	1 U
Dibromochloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U

Analysis/ Analyte	Units	403-__	404-__	405-__	406-__
1,4-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	mg/kg	2 U	2 U	2 U	2 U
Isopropylbenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	mg/kg	2 U	2 U	2 U	2 U
Naphthalene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	mg/kg	1 U	1 U	1 U	1 U
Vinyl Chloride	mg/kg	1 U	1 U	1 U	1 U
m and/or p-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U

Analysis/ Analyte	Units	407-__	408-__	409-__	410-__
2 PCBs in Hazardous by GC/EC					
Aroclor 1016	mg/kg	10.0 U	9.8 U	9.8 U	9.8 U
Aroclor 1221	mg/kg	10.0 U	9.8 U	9.8 U	9.8 U
Aroclor 1232	mg/kg	10.0 U	9.8 U	9.8 U	9.8 U
Aroclor 1242	mg/kg	44	90 J	62 J	46 J
Aroclor 1248	mg/kg	10.0 U	9.8 U	9.8 U	9.8 U
Aroclor 1254	mg/kg	5.0 U	4.9 U	4.9 U	4.9 U
Aroclor 1260	mg/kg	4.0 U	3.9 U	3.9 U	3.9 U
2 Semi-Volatile Organic Compounds in Hazardous Waste					
Acenaphthene	mg/kg	100 U	100 U	100 U	100 U
Acenaphthylene	mg/kg	100 U	100 U	100 U	100 U
Anthracene	mg/kg	100 U	100 U	100 U	100 U
Benzo(a)anthracene	mg/kg	100 UJ	N/A R	N/A R	N/A R
Benzo(a)pyrene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(b)fluoranthene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(g,h,i)perylene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzo(k)fluoranthene	mg/kg	N/A R	N/A R	N/A R	N/A R
Benzoic acid	mg/kg	100 U	100 U	100 U	100 U
Benzyl alcohol	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroethoxy)methane	mg/kg	100 U	100 U	100 U	100 U
bis(2-Chloroisopropyl)ether	mg/kg	100 U	100 U	100 U	100 U
bis(2-Ethylhexyl)phthalate	mg/kg	100 UJ	N/A R	N/A R	N/A R
4-Bromophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Butylbenzylphthalate	mg/kg	100 UJ	N/A R	N/A R	N/A R
4-Chloro-3-methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Chloroaniline	mg/kg	100 U	100 U	100 U	100 U
2-Chloronaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Chlorophenol	mg/kg	100 U	100 U	100 U	100 U
4-Chlorophenyl-phenylether	mg/kg	100 U	100 U	100 U	100 U
Chrysene	mg/kg	100 UJ	N/A R	N/A R	N/A R
Di-n-butylphthalate	mg/kg	100 U	100 U	100 U	100 U
Di-n-octylphthalate	mg/kg	N/A R	N/A R	N/A R	N/A R
Dibenz(a,h)anthracene	mg/kg	N/A R	N/A R	N/A R	N/A R
Dibenzofuran	mg/kg	100 U	100 U	100 U	100 U
1,2-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,3-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
1,4-Dichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
3,3'-Dichlorobenzidine	mg/kg	100 UJ	N/A R	N/A R	N/A R
2,4-Dichlorophenol	mg/kg	100 U	100 U	100 U	100 U
Diethylphthalate	mg/kg	100 U	100 U	100 U	100 U
2,4-Dimethylphenol	mg/kg	100 U	100 U	100 U	100 U
Dimethylphthalate	mg/kg	100 U	100 U	100 U	100 U
4,6-Dinitro-2-methylphenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrophenol	mg/kg	100 U	100 U	100 U	100 U
2,4-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U
2,6-Dinitrotoluene	mg/kg	100 U	100 U	100 U	100 U

Analysis/ Analyte	Units	407-__	408-__	409-__	410-__
Fluoranthene	mg/kg	100 U	100 U	100 U	100 U
Fluorene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobenzene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorobutadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachlorocyclopentadiene	mg/kg	100 U	100 U	100 U	100 U
Hexachloroethane	mg/kg	100 U	100 U	100 U	100 U
Indeno(1,2,3-cd)pyrene	mg/kg	N/A R	N/A R	N/A R	N/A R
Isophorone	mg/kg	100 U	100 U	100 U	100 U
2-Methylnaphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
4-Methylphenol	mg/kg	100 U	100 U	100 U	100 U
Naphthalene	mg/kg	100 U	100 U	100 U	100 U
2-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
3-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
4-Nitroaniline	mg/kg	100 U	100 U	100 U	100 U
Nitrobenzene	mg/kg	100 U	100 U	100 U	100 U
2-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
4-Nitrophenol	mg/kg	100 U	100 U	100 U	100 U
N-nitroso-di-n-propylamine	mg/kg	100 U	100 U	100 U	100 U
N-nitrosodiphenylamine	mg/kg	100 U	100 U	100 U	100 U
Pentachlorophenol	mg/kg	100 U	100 U	100 U	100 U
Phenanthrene	mg/kg	100 U	100 U	100 U	100 U
Phenol	mg/kg	100 U	100 U	100 U	100 U
Pyrene	mg/kg	100 UJ	N/A R	N/A R	N/A R
1,2,4-Trichlorobenzene	mg/kg	100 U	100 U	100 U	100 U
2,4,5-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	mg/kg	100 U	100 U	100 U	100 U
2 VOCs in Solid Hazardous Matrices by GC/MS					
Acetone	mg/kg	5 U	5 U	5 U	5 U
Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	mg/kg	1 U	1 U	1 U	1 U
2-Butanone	mg/kg	5 U	5 U	5 U	5 U
Carbon Disulfide	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	mg/kg	1 U	1 U	1 U	1 U
Chloroform	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	mg/kg	2.56	2.47	2.76	2.79
1,2-Dibromo-3-Chloropropane	mg/kg	1 U	1 U	1 U	1 U
Dibromochloromethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Analysis/ Analyte	Units	407-__	408-__	409-__	410-__
1,4-Dichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl Benzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	mg/kg	2 U	2 U	2 U	2 U
Isopropylbenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	mg/kg	2 U	2 U	2 U	2 U
Naphthalene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	mg/kg	1 U	1 U	1 U	1 U
Vinyl Chloride	mg/kg	1 U	1 U	1 U	1 U
m and/or p-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U

Analysis/ Analyte	Units	411-__
2 PCBs in Hazardous by GC/EC		
Aroclor 1016	mg/kg	9.9 U
Aroclor 1221	mg/kg	9.9 U
Aroclor 1232	mg/kg	9.9 U
Aroclor 1242	mg/kg	61 J
Aroclor 1248	mg/kg	9.9 U
Aroclor 1254	mg/kg	5.0 U
Aroclor 1260	mg/kg	4.0 U
2 Semi-Volatile Organic Compounds in Hazardous Waste		
Acenaphthene	mg/kg	100 U
Acenaphthylene	mg/kg	100 U
Anthracene	mg/kg	100 U
Benzo(a)anthracene	mg/kg	N/A R
Benzo(a)pyrene	mg/kg	N/A R
Benzo(b)fluoranthene	mg/kg	N/A R
Benzo(g,h,i)perylene	mg/kg	N/A R
Benzo(k)fluoranthene	mg/kg	N/A R
Benzoic acid	mg/kg	100 U
Benzyl alcohol	mg/kg	100 U
bis(2-Chloroethoxy)methane	mg/kg	100 U
bis(2-Chloroisopropyl)ether	mg/kg	100 U
bis(2-Ethylhexyl)phthalate	mg/kg	N/A R
4-Bromophenyl-phenylether	mg/kg	100 U
Butylbenzylphthalate	mg/kg	N/A R
4-Chloro-3-methylphenol	mg/kg	100 U
4-Chloroaniline	mg/kg	100 U
2-Chloronaphthalene	mg/kg	100 U
2-Chlorophenol	mg/kg	100 U
4-Chlorophenyl-phenylether	mg/kg	100 U
Chrysene	mg/kg	N/A R
Di-n-butylphthalate	mg/kg	100 U
Di-n-octylphthalate	mg/kg	N/A R
Dibenz(a,h)anthracene	mg/kg	N/A R
Dibenzofuran	mg/kg	100 U
1,2-Dichlorobenzene	mg/kg	100 U
1,3-Dichlorobenzene	mg/kg	100 U
1,4-Dichlorobenzene	mg/kg	100 U
3,3'-Dichlorobenzidine	mg/kg	N/A R
2,4-Dichlorophenol	mg/kg	100 U
Diethylphthalate	mg/kg	100 U
2,4-Dimethylphenol	mg/kg	100 U
Dimethylphthalate	mg/kg	100 U
4,6-Dinitro-2-methylphenol	mg/kg	100 U
2,4-Dinitrophenol	mg/kg	100 U
2,4-Dinitrotoluene	mg/kg	100 U
2,6-Dinitrotoluene	mg/kg	100 U

Analysis/ Analyte	Units	411-__
Fluoranthene	mg/kg	100 U
Fluorene	mg/kg	100 U
Hexachlorobenzene	mg/kg	100 U
Hexachlorobutadiene	mg/kg	100 U
Hexachlorocyclopentadiene	mg/kg	100 U
Hexachloroethane	mg/kg	100 U
Indeno(1,2,3-cd)pyrene	mg/kg	N/A R
Isophorone	mg/kg	100 U
2-Methylnaphthalene	mg/kg	100 U
2-Methylphenol	mg/kg	100 U
4-Methylphenol	mg/kg	100 U
Naphthalene	mg/kg	100 U
2-Nitroaniline	mg/kg	100 U
3-Nitroaniline	mg/kg	100 U
4-Nitroaniline	mg/kg	100 U
Nitrobenzene	mg/kg	100 U
2-Nitrophenol	mg/kg	100 U
4-Nitrophenol	mg/kg	100 U
N-nitroso-di-n-propylamine	mg/kg	100 U
N-nitrosodiphenylamine	mg/kg	100 U
Pentachlorophenol	mg/kg	100 U
Phenanthrene	mg/kg	100 U
Phenol	mg/kg	100 U
Pyrene	mg/kg	N/A R
1,2,4-Trichlorobenzene	mg/kg	100 U
2,4,5-Trichlorophenol	mg/kg	100 U
2,4,6-Trichlorophenol	mg/kg	100 U
2 VOCs in Solid Hazardous Matrices by GC/MS		
Acetone	mg/kg	5 U
Benzene	mg/kg	0.5 U
Bromodichloromethane	mg/kg	0.5 U
Bromoform	mg/kg	0.5 U
Bromomethane	mg/kg	1 U
2-Butanone	mg/kg	5 U
Carbon Disulfide	mg/kg	0.5 U
Carbon Tetrachloride	mg/kg	0.5 U
Chlorobenzene	mg/kg	0.5 U
Chloroethane	mg/kg	1 U
Chloroform	mg/kg	0.5 U
Chloromethane	mg/kg	2.9
1,2-Dibromo-3-Chloropropane	mg/kg	1 U
Dibromochloromethane	mg/kg	0.5 U
1,2-Dibromoethane	mg/kg	0.5 U
1,2-Dichlorobenzene	mg/kg	0.5 U
1,3-Dichlorobenzene	mg/kg	0.5 U

Analysis/ Analyte	Units	411-__
1,4-Dichlorobenzene	mg/kg	0.5 U
1,1-Dichloroethane	mg/kg	0.5 U
1,2-Dichloroethane	mg/kg	0.5 U
1,1-Dichloroethene	mg/kg	0.5 U
cis-1,2-Dichloroethene	mg/kg	0.5 U
trans-1,2-Dichloroethene	mg/kg	0.5 U
1,2-Dichloropropane	mg/kg	0.5 U
cis-1,3-Dichloropropene	mg/kg	0.5 U
trans-1,3-Dichloropropene	mg/kg	0.5 U
Ethyl Benzene	mg/kg	0.5 U
2-Hexanone	mg/kg	2 U
Isopropylbenzene	mg/kg	0.5 U
Methylene Chloride	mg/kg	0.5 U
4-Methyl-2-Pentanone	mg/kg	2 U
Naphthalene	mg/kg	0.5 U
Styrene	mg/kg	0.5 U
1,1,2,2-Tetrachloroethane	mg/kg	0.5 U
Tetrachloroethene	mg/kg	0.5 U
Toluene	mg/kg	0.5 U
1,2,3-Trichlorobenzene	mg/kg	0.5 U
1,2,4-Trichlorobenzene	mg/kg	0.5 U
1,1,1-Trichloroethane	mg/kg	0.5 U
1,1,2-Trichloroethane	mg/kg	0.5 U
Trichloroethene	mg/kg	0.5 U
Trichlorofluoromethane	mg/kg	1 U
Vinyl Chloride	mg/kg	1 U
m and/or p-Xylene	mg/kg	0.5 U
o-Xylene	mg/kg	0.5 U

United States Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101

Date: __/__/____

Subject: Data Disposition/Sample Release for ASR #: 5729

Project ID: MDA7X300

Project Description: Former Lyons Diecasting Company - Removal Assessment sampling

From: Mike B. Davis
SUPR/ERSB/PPSS

To: Kaye Dollmann
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.

☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

☐ Samples are associated with a legal proceeding.

☐ Question/Concern with data - possible reanalysis requested.

☐ Other:_____

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 06/13/2012

Subject: Transmittal of Sample Analysis Results for ASR #: 5730

Project ID: MDA7X300

Project Description: Former Lyons Diecasting Company - Removal Assessment sampling

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To: Mike B. Davis
SUPR/ERSB/PPSS

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Mike B. Davis Org: SUPR/ERSB/PPSS Phone: 913-551-7328

Project ID: MDA7X300

Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Location: Buckner State: Missouri Program: Superfund

Site Name: FORMER LYONS DIECASTING COMPANY - SITEWIDE Site ID: A7X3 Site OU: 00

Purpose: Site Cleanup Support GPRA PRC: 303DC6

Removal Assessment/Treatability Study.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample

Units: Specific units in which results are reported.

mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	__	Waste	LDMS-1		05/15/2012	12:11			05/16/2012
2 -	__	Waste	LDMS-2		05/15/2012	14:00			05/16/2012
3 -	__	Waste	LDMS-3		05/15/2012	15:00			05/16/2012
4 -	__	Waste	LDMS-4		05/15/2012	16:01			05/16/2012
5 -	__	Waste	LDMS-5		05/15/2012	17:02			05/16/2012
6 -	__	Waste	LDMS-6		05/16/2012	10:15			05/17/2012
7 -	__	Waste	LDMS-7		05/16/2012	11:06			05/17/2012
8 -	__	Waste	LDMS-8		05/16/2012	12:16			05/17/2012
9 -	__	Waste	LDMS-9		05/16/2012	13:16			05/17/2012
10 -	__	Waste	LDMS-10		05/16/2012	14:15			05/17/2012
11 -	__	Waste	LDMS-11		05/16/2012	15:13			05/17/2012
12 -	__	Waste	LDMS-12		05/16/2012	16:14			05/17/2012

Analysis Comments About Results For This Analysis

1 PCBs in Solid Waste by Quick Microextraction and GC/ECD

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3240.8A

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__ 12-__

Comments:

Dilutions were necessary because of high levels of Aroclor1242 and Aroclor1248 in all samples for this analysis. The reporting limits were elevated approximately 100 times due to dilutions in samples 5730-1 (90.1X); -2 (102X), -3 (87X), -4 (94.3X), -5 (86.2X), -6 (100X), -7 (109X), -8 (104X), -9 (69.4X), -10 (82.8X), -11 (82.0X), and -12 (86.2X).

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 PCBs in Solid Waste by Quick Microextraction and GC/ECD					
Aroclor 1242	mg/kg	14	30	35	34
Aroclor 1248	mg/kg	9.8	20	22	22
Aroclor 1254	mg/kg	9.0 U	10 U	8.7 U	9.4 U
Aroclor 1260	mg/kg	2.2 U	10 U	8.7 U	9.4 U

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 PCBs in Solid Waste by Quick Microextraction and GC/ECD					
Aroclor 1242	mg/kg	35	43	40	41
Aroclor 1248	mg/kg	26	27	26	29
Aroclor 1254	mg/kg	5.6 U	7.6 U	11 U	10 U
Aroclor 1260	mg/kg	8.6 U	10 U	11 U	10 U

Project ID: MDA7X300 Project Desc: Former Lyons Diecasting Company - Removal Assessment sampling

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 PCBs in Solid Waste by Quick Microextraction and GC/ECD					
Aroclor 1242	mg/kg	39	41	43	36
Aroclor 1248	mg/kg	26	26	26	22
Aroclor 1254	mg/kg	6.9 U	8.3 U	8.2 U	8.6 U
Aroclor 1260	mg/kg	6.9 U	8.3 U	8.2 U	8.6 U

United States Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101

Date: __/__/____

Subject: Data Disposition/Sample Release for ASR #: 5730

Project ID: MDA7X300

Project Description: Former Lyons Diecasting Company - Removal Assessment sampling

From: Mike B. Davis
SUPR/ERSB/PPSS

To: Kaye Dollmann
ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

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